Supreme Court, U.S.
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No. 03-1138 FEB 3 - 2004

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IN THE

Supreme Court of the United States

TURN-KEY-TECH, LLC,

Petitioner,

v.

NATIONAL FILM LABORATORY, INC. (D/B/A CREST NATIONAL OPTICAL MEDIA), MUSIC CITY OPTICAL MEDIA, INC., HOLLYWOOD RECORDS, INC., CONCORD DISC MANUFACTURING CORP., KRAUSS MAFFEI CORPORATION, AND KRAUS MAFFEI KUNSTSTOFFTECHNIK GMBH,

Respondents.

ON PETITION FOR A WRIT OF CERTIORARI
TO THE COURT OF APPEALS FOR THE FEDERAL CIRCUIT

PETITION FOR A WRIT OF CERTIORARI

Of Counsel:

DAVID C. FREDERICK
RICHARD H. STERN
KELLOGG, HUBER, HANSEN,
TODD & EVANS, P.L.L.C.
1615 M Street, N.W.
Suite 400
Washington, D.C. 20036
(202) 326-7900

BORIS ZELKIND
Counsel of Record
PATRICIA A. SHACKELFORD
ZELKIND & SHACKELFORD LLP
Sorrento Towers North
5355 Mira Sorrento Place
Suite 290
San Diego, CA 92121
(858) 558-6745

Counsel for Petitioner

185431

COUNSEL PRESS
(800) 274-3321 • (800) 359-6859

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QUESTION PRESENTED

The Federal Circuit affirmed the District Court's summary judgment of noninfringement on new grounds based on the Federal Circuit's own interpretation of a non-disputed patent claim element, which was first raised *sua sponte* at oral argument and never addressed by the parties or the District Court below. The question presented is:

Whether this Court should limit the Federal Circuit's practice, which is in conflict with other appellate court holdings that *sua sponte* rulings on mixed questions of fact and law without notice and hearing violate a litigant's substantial rights, of entering judgments based on its *sua sponte* interpretations of patent claims.

RULE 29.6 CORPORATE DISCLOSURE STATEMENT

Petitioner Turn-Key-Tech, LLC has no parent corporation and no publicly held company owns 10 percent or more of Turn-Key-Tech, LLC's stock.

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Turn-Key-Tech, LLC, respectfully petitions for a writ of certiorari to review the judgment of the United States Court of Appeals for the Federal Circuit in this case.

INTRODUCTION

This case involves an egregious exercise of a court's power to definitively resolve a case by issuing a *sua sponte* ruling on an issue not raised in the District Court or argued by either party on appeal. Without giving petitioner any notice that it intended to foreclose petitioner's suit for patent infringement against respondents and an opportunity to present arguments against the court's newfound theory, the Federal Circuit *sua sponte* affirmed summary judgment against petitioner on an alternate ground that had not been briefed by the parties or passed on by the District Court. That decision runs counter to numerous decisions of this Court holding that a party's substantial rights may not be adjudicated by a court in a *sua sponte* ruling without notice and an opportunity to be heard. It also directly conflicts with the decisions of seven other circuits which hold that a court may not *sua sponte* grant summary judgment against a party without affording that party notice of the grounds for judgment and an opportunity to present evidence and argument. The Federal Circuit's decision here was not an isolated error, but rather the latest manifestation of an accepted practice of issuing *sua sponte* claim constructions that has drawn dissent from a distinct minority on the court. Because the question presented goes fundamentally to the manner of how patents are adjudicated and there is no expectation that the Federal Circuit will reverse itself on its own, this Court's review is necessary.

OPINIONS BELOW

The court of appeals' opinion (App. 1a-8a) is not officially reported. It is reported unofficially at 74 Fed. Appx. 58, 2003 WL 22097823. The court of appeals' order denying rehearing

(App. 72a-73a) is unreported. The final judgment of the district court and its underlying claim construction and summary judgment orders (App. 9a-10a, 39a-71a, 11a-38a) are not reported.

JURISDICTION

The court of appeals entered its judgment on September 8, 2003. Petitioner, Turn-Key-Tech, LLC ("Turn-Key"), timely filed a petition for rehearing, which was denied on October 14, 2003. The Chief Justice subsequently extended the time within which to file a petition for a writ of certiorari to and including February 3, 2004. App. No. 03A526. This Court has jurisdiction under 28 U.S.C. § 1254(1).

CONSTITUTIONAL PROVISION INVOLVED

The Fifth Amendment to the Constitution provides, in pertinent part: "No person shall be . . . deprived of life, liberty, or property, without due process of law. . . ."

STATEMENT

Although the question presented does not require the Court to grasp the technology underlying this patent infringement dispute, the consequences of the Federal Circuit's erroneous *sua sponte* ruling is best understood against the backdrop of Turn-Key's underlying claim of infringement. The invention of the Sorensen patent (U.S. Pat. No. 4,422,998, App. 74a-92a) is an improved method or process for making injection molded plastic articles, such as the compact discs ("CD") and digital versatile discs ("DVD") that are the subject of the infringement claim in this case. Sorensen's invention introduced to the field of injection molding the new concept of using a substantially enclosed mold that permits a finished plastic article to be removed from the mold without fully opening the mold.

Sorensen accomplished this by providing an enclosed passageway or "guide conduit" formed in the mold as the two halves of the mold separate slightly. The finished CD or other plastic article then exits the mold via the guide conduit. Without use of the invention, manufacturers of CDs have to open molds fully and use expensive and complicated robotic arms to reach into the opened molds to extract the discs. Sorensen's invention makes such equipment unnecessary and permits much faster, and thus more efficient and economical, production of molded articles.

In May 2001, Sorensen's exclusive licensee, Turn-Key, filed three complaints in the Central District of California against the respondent manufacturers of CDs and DVDs, accusing them of infringing the patent. The fourth and fifth respondents, the disc manufacturing equipment[1] suppliers for the three firms that Turn-Key sued, brought an action for a declaratory judgment of non-infringement and invalidity. All four cases were consolidated.

The guide conduit of the claimed molding process is claimed in paragraph (d) of claim 1:

> (d) Separating the two mold parts . . . to create a substantially enclosed guide conduit . . . ;

The removal of the plastic article via the guide conduit is claimed in paragraphs (e) and (f) of claim 1:

> (e) Ejecting the plastic product into said guide conduit; and

1. The disc manufacturing equipment that the respondents respectively sell or use include the CD-94 mold. The infringement issue is whether the CD-94 mold, when used in its normal manner, carries out the patented process. That in turn depends, in this case, on whether the CD-94 mold uses a guide conduit as described in the patent.

(f) Guiding and transporting the ejected product from between the mold parts through the guide conduit.

In January 2002, after a "*Markman* hearing,"[2] the district court issued an order construing the claims. (App. 39a-71a). Based entirely on the claim construction order's interpretation of the term "guide conduit" of paragraph (d), respondents moved for summary judgment of noninfringement. They asserted that the machines that they respectively sold or used did not contain a "substantially enclosed guide conduit," as that term was construed by the District Court. In June 2002, the court granted the motion and subsequently entered judgment holding that respondents do not infringe the patent. (App. 11a-38a, 9a-10a). The court made no findings regarding any aspect of the case or the patent other than paragraph (d) of claim 1. Among other things, the court did not address whether the molded product was ejected into the guide conduit, as described in paragraph (e) of the claim.[3] (App. 11a-38a).

Turn-Key timely appealed the judgment to the Federal Circuit. In its briefs, Turn-Key argued that the judgment was based on an erroneous interpretation of the term "guide conduit" in paragraph (d) of claim 1. Turn-Key argued that under a proper claim construction, the respondents' process included the guide conduit of the claimed invention and, thus, infringed the patent.

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2. The name refers to this Court's decision in *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388-89 (1996) (holding that issues of claim construction are matters more suitable for determination by judge than by jury).

3. The only discussion of the ejection step below was in the *Markman* phase of the District Court proceedings and concerned whether ejection included pulling the article from the mold as contrasted with forcefully pushing or discharging it out. (App. at 62a-64a, 63a n.8).

Respondents in turn argued in their brief only that the district court properly interpreted paragraph (d) and that, under that claim construction, they did not infringe. None of the parties briefed other issues, such as how ejection of the article is accomplished under paragraph (e) and whether the respondents' process ejects CDs and DVDs in that same way.

At the end of oral argument of the appeal, Turn-Key was asked for the first time whether infringement would occur if a new interpretation were given to the language of paragraph (e) of the claim. The new interpretation, never asserted before the District Court by any party, never addressed by the District Court, and never before suggested by any party, became the basis of the Federal Circuit's opinion. (App. 5a).

On September 8, 2003, the Federal Circuit affirmed the District Court's decision of noninfringement in favor of respondents. (App. 1a-8a). The Federal Circuit agreed with Turn-Key that the District Court had misinterpreted the patent by inserting into paragraph (d) an extraneous limitation about the guide conduit. (App. 4a). But the Federal Circuit found the error to be "harmless" because of the court's new, *sua sponte* interpretation of paragraph (e). (App. 5a, 8a). Paragraph (e) requires that the molded articles be ejected into the guide conduit. According to the Federal Circuit, that paragraph requires the two mold halves to first finish separating *before* the molded article can be ejected into the guide conduit. (App. 5a). But without input or briefing from the parties, the Federal Circuit misunderstood the patented method, which actually ejects the article into the guide conduit *before* the two mold parts finish separating. The respondents practice their molding method in the same way, by ejecting CDs and DVDs *before* the mold parts finish separating, but under the Federal Circuit's *sua sponte* construction such ejection was not covered by the patented method.

Turn-Key petitioned for rehearing, pointing out that the district court had never considered the new claim interpretation and that Turn-Key had never had an opportunity to brief the new issue. Turn-Key also pointed out that the court's novel, *sua sponte* claim construction excluded from the scope of the claim the very process described in the patent specification, contrary to established canons of patent claim construction.[4] The Federal Circuit denied rehearing on October 6, 2003. (App. 72a-73a).

REASONS FOR GRANTING THE PETITION

I. THE FEDERAL CIRCUIT'S PRACTICE OF ISSUING *SUA SPONTE* CONSTRUCTIONS OF PATENTS WITHOUT GIVING AFFECTED PARTIES NOTICE AND AN OPPORTUNITY TO BE HEARD IS INCONSISTENT WITH THIS COURT'S DECISIONS AND THOSE OF OTHER COURTS AS TO WHEN *SUA SPONTE* RULINGS MAY PROPERLY BE ISSUED

The Federal Circuit held that Turn-Key's patent had not been infringed based upon a *sua sponte* claim construction ruling

4. *See, e.g., Modine Mfg. Co. v. U.S. Int'l Trade Comm'n*, 75 F.3d 1545, 1550 (Fed. Cir. 1996) ("a claim interpretation that would exclude the inventor's device is rarely the correct interpretation; such an interpretation requires highly persuasive evidentiary support"), *abrogated on other grounds, Festo Corp v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558 (Fed. Cir. 2000); *Canaan Prods., Inc. v. Edward Don & Co.*, 388 F.2d 540, 544 (7th Cir. 1968) ("The terms [patentee] uses should be interpreted to read upon the structure he describes in the patent."); *see also Hoechst Celanese Corp. v. BP Chems. Ltd.*, 78 F.3d 1575, 1581 (Fed. Cir. 1996) ("We share the district court's view that it is unlikely that an inventor would define the invention in a way that excluded the preferred embodiment, or that persons of skill in this field would read the specification in such a way.").

regarding claim terms not disputed by the parties on appeal. The court failed to afford Turn-Key adequate notice of the newly identified claim construction issue and a meaningful opportunity to be heard on that issue. That ruling is thus fundamentally flawed and must be vacated. The decision below is merely the latest in a long series of decisions in which the Federal Circuit has arrogated to itself the authority to decide how to construe a patent, without regard to what the Patent Office originally concluded in patenting the invention or what the parties themselves might argue in support of or opposition to a claim of infringement. Because patents represent valuable property interests recognized explicitly in the Constitution, and because the Federal Circuit's practice of deciding patent cases with *sua sponte* rulings impinges on a patent holder's substantial rights, the petition should be granted and the decision below vacated. The issue presented in this case goes to the heart of the patent dispute resolution process designed by Congress.

A. The Federal Circuit Has Developed A Well-Entrenched Practice Of Deciding Patent Claim Construction Cases On A *Sua Sponte* Basis

The decision below represents simply the latest in a line of cases in which the Federal Circuit has reached out to determine issues of claim construction not raised or briefed by any of the parties on appeal. Although the prevalence of that approach is difficult to quantify, a number of published decisions in recent years reveals a substantial gap between a clear majority of the judges on the court and a vocal, if unheeded, minority. On a recurring basis, the Federal Circuit routinely feels itself unconstrained by any authority from engaging in *sua sponte* claim construction without permitting input from the parties or consideration in the first instance by the district court charged with developing a factual record to inform the construction of the patent. A distinct minority of judges on the Federal Circuit

has complained in published dissenting or concurring opinions about that practice, but has been unable to garner enough votes to force an *en banc* reassessment of the court's rule and thus has been functionally muzzled by a clear majority that sees no difficulty in deciding fundamental issues of patent claim construction without briefing or argument from the parties. In adopting its practice, however, a majority on the Federal Circuit has never articulated a justification for it or a source of judicial authority for deciding such important property interests without giving the affected parties an opportunity to be heard on the precise point of law or fact at issue.

In *Exxon Chem. Patents, Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1557-61 (Fed. Cir. 1995), for example, the Federal Circuit adopted a claim construction that was advanced by neither party on appeal. *See* 64 F.3d at 1569 (Nies, J., dissenting). As Judge Nies observed in dissent in that case, "[b]y advocating a different interpretation of the claim *sua sponte*, the majority required Exxon to litigate during trial not only its opponent's position but also the unknowable position of the [Federal Circuit]." *Id.* But the Federal Circuit has demonstrated that it does expect litigants to anticipate such unknowable positions. A few years later, the court showed that its *sua sponte* approach to claim construction in the *Exxon* case was not an isolated instance. In *Rodime PLC v. Seagate Tech., Inc.*, 174 F.3d 1294 (Fed. Cir. 1999), the Federal Circuit took precisely the same approach. The court there reversed the district court on an issue of claim construction that neither party had raised or briefed on appeal. *See id.* at 1302.

The Federal Circuit's *sua sponte* claim construction practice is not limited to appeals from district courts in patent infringement cases. It extends as well to the court's appellate review of Patent Office refusals to issue patents to applicants. In a setting comparable to that of this case, the Federal Circuit

reversed the agency's rejection of a claim to a method to "restore hair growth" on the basis of a *sua sponte* claim construction. *In re Cortright*, 165 F.3d 1353, 1359 (Fed. Cir. 1999). The agency rejected the claim based on its interpretation of "restore hair growth" as a total, rather than partial, cure of baldness as understood by a person of ordinary skill in the art. The Federal Circuit conducted its own prior art search and found a number of patents, not considered by the Office or the applicant in the proceedings below, which supported the court's conclusion that a person of ordinary skill would interpret the phrase to mean a partial cure of baldness. *Id.* at 1356-59; *see* William C. Rooklidge & Mathew F. Weil, *Judicial Hyperactivity: The Federal Circuit's Discomfort with Its Appellate Role*, 15 Berkeley Tech. L.J. 725, 730-31 (2000) ("*Judicial Hyperactivity*"). The court therefore reversed the agency determination of unpatentability. The Office sought rehearing, on the ground that proper appellate review of agency action must be on the basis of the record before the agency, *cf. Dickinson v. Zurko*, 527 U.S. 150 (1999) (requiring APA-based appellate review of Patent Office determinations), but the Federal Circuit denied rehearing. *Judicial Hyperactivity, supra* at 731-34.

The discomfort with the Federal Circuit's prevailing practice among a distinct minority of the judges came into full view in *Seal-Flex, Inc. v. Athletic Track & Court Constr.*, 172 F.3d 836 (Fed. Cir. 1999) (per curiam), which addressed a *sua sponte* construction of a patent offered by Judge Rader. The Federal Circuit had decided the case in a *per curiam* decision, noting that "where, as here, the parties agree to a particular construction of the claims which is adopted by the district court, and neither party disputes that construction on appeal, this court declines to raise an issue *sua sponte* which the parties have not presented on appeal." *Id.* at 842. In a separate opinion, however, Judge

Rader concurred in the result based upon his *sua sponte* claim construction analysis. *Id.* at 847-51. In a separate concurrence, Judges Bryson and Newman strenuously disagreed with Judge Rader's approach and stressed their joint opinion that the Federal Circuit should not engage in *sua sponte* claim construction (*id.* at 851-52):

> The requirement that appellate courts normally limit themselves to issues that the parties have preserved below and raised on appeal serves important interests of both trial and appellate processes. The trial process benefits from a preservation-of-error requirement because it frees trial courts to focus on the factual and legal issues the parties identify as being in dispute, without having to worry that a misstep on an issue not disputed or objected to by the parties will result in a reversal. The requirement benefits the appellate process by letting appellate courts focus on issues that the trial courts have expressly ruled on and that the parties have briefed on appeal, rather than having to venture opinions regarding issues that have never been briefed, argued, or even adverted to in the course of the proceedings.

Thus, on those occasions when the Federal Circuit panel is composed of judges from the minority on that court which disapproves of the practice of *sua sponte* appellate claim construction, the litigants may be protected from the unfairness that the practice creates. On most other occasions, however, as in the present case, litigants are vulnerable to being deprived of notice and an opportunity to be heard on claim construction. A party's property rights to have a patent adjudicated in accordance with due process standards should not rest on the fortuity of drawing a panel that consists of at least two members of the minority of Federal Circuit judges who believe that

sua sponte rulings of patent claim construction issues are improper.

The Federal Circuit's internal debate and split over *sua sponte* claim constructions has not gone unnoticed by commentators. They have sharply criticized the Federal Circuit's predominant view that such *sua sponte* rulings are a proper exercise of judicial power. As one commentator observes, "Now the bar is left to wonder why and when the court will consider arguments raised for the first time on appeal and arguments not made by either party but concocted by the court itself." *Judicial Hyperactivity, supra* at 736-39, 745-47. Another commentator criticizes the Federal Circuit's *sua sponte* ruling practice because it alters fundamentally the role of judge and jury in patent infringement cases. "[I]f the Federal Circuit persists in applying its own interpretation of the claims to the facts without a new trial, there truly is no remaining purpose for a jury in this process." Gregory D. Leibold, *In Juries We Do Not Trust: Appellate Review of Patent Infringement Litigation*, 67 U. Colo. L. Rev. 623, 670 (1996).

B. The Federal Circuit's Practice As Applied In This Case Deprives Petitioners Of Substantial Rights In Conflict With This Court's Decisions

1. In this case, the Federal Circuit applied its *sua sponte* claim construction practice by devising a wholly new construction of the patent and deciding based on that construction that the patent had not been infringed. That conclusion occurred *after* the Federal Circuit was persuaded by Turn-Key that the District Court had erroneously rejected Turn-Key's infringement claim based on paragraph (d) of claim 1. Thus, Turn-Key's substantial property rights in its claim of infringement against respondents were adversely affected by the Federal Circuit's *sua sponte* ruling concerning the claim

construction of the "ejection" step of paragraph (e) of claim 1 of the patent. Turn-Key was denied both reasonable notice and any meaningful opportunity to respond to the Federal Circuit's newly raised issue of claim construction, one that was not raised or briefed by the parties on appeal, nor ever argued to or addressed by the District Court. Turn-Key had appealed the District Court's summary judgment ruling based on the District Court's erroneous construction of the term "guide conduit" in paragraph (d) of claim 1 of Turn-Key's patent. The parties' briefing addressed only that specific claim element and the propriety of the District Court's interpretation of that claim element. The Federal Circuit agreed with Turn-Key that the District Court erred in construing the term "guide conduit" by importing an extraneous limitation. But then the Federal Circuit also determined that a different claim element, "ejection" (and its timing in relation to mold opening), which was not in dispute on appeal and which was not raised or briefed by the parties, was determinative of the case.

The Federal Circuit did not provide any indication to Turn-Key prior to oral argument that this new issue was under judicial consideration. The Federal Circuit did not request supplemental briefing about the claim element that it, and not the parties, felt was dispositive of the matter. The Federal Circuit's only indication that it was considering an entirely different claim construction issue from the one raised by the parties occurred in the final two minutes of rebuttal in the oral argument. Not realizing that the court's decision would turn on an undisputed issue on appeal, Turn-Key spent the entirety of its written submissions and opening argument, and the majority of its rebuttal argument, addressing issues relating to the interpretation of the term "guide conduit" of paragraph (d) of claim 1, upon which the underlying summary judgment motion and the resulting District Court decision was based.

The mere asking of three questions at the end of oral argument did not provide Turn-Key with reasonable notice that paragraph (e) of claim 1 would be subjected to interpretation by the Federal Circuit on this appeal and furthermore would provide the basis for the court's affirmance of the noninfringement judgment. Those questions amounted to nothing more than a glimpse into the panel's thinking and certainly did not afford Turn-Key a proper and fair opportunity to respond to or put forth its best evidence regarding the newly raised issues of claim construction and infringement.[5]

In that respect, the Federal Circuit's error was closely analogous to the one corrected by this Court in *Nelson v. Adams USA, Inc.*, 529 U.S. 460 (2000). There, this Court reversed a Federal Circuit judgment that an officer was immediately liable, upon the filing of an amended pleading, for an attorney fee award against the officer's company in a patent infringement case. As this Court made clear, "due process does not countenance such swift passage from pleading to judgment in the pleader's favor." *Id.* at 465. Because the officer there "was never afforded a proper opportunity to respond to the claim against him," this Court held that "due process affords him" the "right to contest on the merits" the substance of his argument. *Id.* at 468, 472.

2. The Federal Circuit's decision to rule *sua sponte* on the patent construction and infringement claims was inconsistent

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5. As a general rule, federal appellate courts do not consider points raised for the first time at oral argument, in order to avoid the injustice and surprise that such a situation presents. *See, e.g., Thomas R.W. v. Massachusetts Dep't of Educ.*, 130 F.3d 477, 480 (1st Cir. 1997); *Principal Mutual Life Ins. Co. v. Charter Barclay Hosp., Inc.*, 81 F.3d 53, 56 (7th Cir. 1996); *Stewart Title Guar. Co. v. Cadle Co.*, 74 F.3d 835, 836-38 (7th Cir. 1996); *see also Lufkins v. Leapley*, 965 F.2d 1477, 1485 (8th Cir. 1992) (Heaney, J., dissenting); *Williams v. Chrans*, 894 F.2d 928, 932 n.1 (7th Cir. 1990). The same reasoning applies here.

with this Court's decisions in analogous areas of law. As a matter of elemental due process, this Court has long held that the Constitution, at a minimum, requires prior notice and an opportunity to be heard. *Mullane v. Central Hanover Bank & Trust Co.*, 339 U.S. 306, 314 (1950); *Boddie v. Connecticut*, 401 U.S. 371, 377 (1971); *United States v. James Daniel Good Real Property*, 510 US. 43, 53 (1993). These procedural due process safeguards are deeply rooted in our judicial system. *Rochin v. California*, 342 U.S. 165, 170-171 (1952). The Federal Circuit denied Turn-Key those procedural safeguards when it affirmed the finding of non-infringement based entirely upon its *sua sponte* claim construction without input from the parties. *See Nelson*, 529 U.S. at 468 (party must be "afforded a proper opportunity to respond to a claim" before it is adjudicated against that party); *Mullane*, 339 U.S. at 314 ("[t]he notice must be of such nature as reasonably to convey the required information"); *Boddie*, 401 U.S. at 377 ("persons forced to settle their claims of right and duty through the judicial process must be given a meaningful opportunity to be heard.").[6]

6. Turn-Key's opportunity under appellate rules of procedure to request a rehearing (which it, in fact, did) cannot substitute for the type of process necessary to present its arguments on the issue of claim construction to counter the *sua sponte* decision of the court. As is the case with the vast majority of all such petitions, the rehearing petition here was summarily denied. (App. 72a-73a). Because there is such a heavy presumption against the likelihood that a rehearing petition will have merit, arguments that might have carried more substantial weight, if not carried the day, simply are not given the same credence as if they had been presented when the case was still being briefed, argued, and considered for decision by the panel. As the federal courts of appeals have recognized, a summary denial of a rehearing petition does not constitute a decision on the merits of the arguments raised in the petition. *Exxon Chem. Patents, Inc. v. Lubrizol Corp.*, 137 F.3d 1475, 1479-80 (Fed. Cir. 1998) (collecting cases). Thus, a summary denial of a rehearing petition does not provide the opportunity to be heard required by the Fifth Amendment.

To safeguard inadvertent intrusions by courts on litigants' substantial rights, this Court has been careful to employ and sanction *sua sponte* rulings only in situations where due process rights were not implicated – indeed, only where the very power of the court is at issue. *See, e.g., Liberty Mut. Ins. Co. v. Wetzel*, 424 U.S. 737, 740 (1976) (determination that court lacks jurisdiction over case); *Juidice v. Vail*, 430 U.S. 327, 331 (1977) (issue of party's standing to litigate also an appropriate subject for *sua sponte* rulings because it goes to constitutional power of court to exercise judicial power). That limitation is appropriate, for where the court itself lacks power to determine the rights of parties, the court must acknowledge that fact even on its own motion. *See Steel Co. v. Citizens for a Better Env't*, 523 U.S. 83, 94 (1998) ("Without jurisdiction the court cannot proceed at all in any cause. Jurisdiction is power to declare the law, and when it ceases to exist, the only function remaining to the court is that of announcing the fact and dismissing the cause.").

The second area in which this Court has upheld the practice of issuing *sua sponte* rulings is when a court considers purely legal issues underlying or governing the dispute that the parties have brought directly to that court. As this Court explained in *Kamen v. Kemper Financial Servs., Inc.*, "[w]hen an issue or claim is properly before the court, the court is not limited to the particular legal theories advanced by the parties, but rather retains the independent power to identify and apply the proper construction of governing law." 500 U.S. 90, 99 (1991). Thus, issues about the validity or even applicability of the law that has been assumed by the parties to apply to the issue at hand can properly be ruled on by a court *sua sponte*. *Arcadia, Ohio v. Ohio Power Co.*, 498 U.S. 73, 77 (1990) (Court *sua sponte* found statute not applicable to dispute where parties did not question applicability of statute); *United States v. Burke*,

504 U.S. 229, 246 (1992) (Scalia, J., concurring) (arguing for *sua sponte* consideration of validity of statute allegedly governing dispute); *see also Kolstad v. American Dental Ass'n*, 527 U.S. 526, 540 (1999) (issue of proper legal standards for imputing liability to employer in punitive damages context was "so integral to decision of the case that they could be considered 'fairly subsumed' by the actual questions presented" and thus appropriate for *sua sponte* consideration). But that does not mean that a court is free, as the Federal Circuit erroneously thought here, to issue a ruling on a wholly different claim term from that which the parties appealed to the court.

3. The Federal Circuit's error is particularly plain in view of this Court's recognition that an issue of patent claim construction is a mixed question of fact and law. Moreover, an issue of claim construction does not go to the court's power to hear the case. Accordingly, claim construction falls into neither of the two categories judicially recognized as appropriate for *sua sponte* consideration.

That claim construction is a mixed fact/law issue was made clear in this Court's decision in *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996). Even as the Court was holding that patent claims should be decided by judges, not juries, it explained that claim construction is ceded to a judge "notwithstanding its evidentiary underpinnings," *id.* at 390, only because judges are more suited than juries to interpret complex legal instruments (*id.* at 388):

> We said in *Miller v. Fenton*, 474 U.S. 104, 114 (1985), that when an issue "falls somewhere between a pristine legal standard and a simple historical fact, the fact/law distinction at times has turned on a determination that, as a matter of the sound administration of justice, one judicial actor is better

> positioned than another to decide the issue in question." So it turns out here, for judges, not juries, are the better suited to find the acquired meaning of patent terms.

Id. at 388 (citation omitted).

Before so concluding, the Court repeatedly referred to the evidentiary proof and expert testimony often needed to aid claim construction. *E.g., id.* at 378 ("receipt of evidence"), 385 ("evidentiary proof"), 387 ("aided by expert testimony"); *see also id.* at 386 ("ultimate issue of mixed fact and law"). In recognizing that claim construction involves determination of a mixed fact/law question having factual and evidentiary underpinnings, the Court adopted a similar standard to the one set out for "obviousness" in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966) (holding obviousness an issue of law subject to factual inquiries into scope and content of prior art, differences between prior art and claims at issue, and level of ordinary skill in pertinent art). *See also U.S. Indus. Chems., Inc. v. Carbide & Carbon Chems. Corp.*, 315 U.S. 668, 678 (1942) (court often must receive expert testimony to ascertain meaning of technical or scientific terminology so that court is aided in its understanding of patent).

4. Notwithstanding this Court's clear statements in its *Markman* opinion that a patent claim presents a mixed question of fact and law, the Federal Circuit has construed *Markman* to mean that judges may decide a patent claim as an issue of pure law – and that misreading has become accepted dogma for the Federal Circuit. Thus, in *Cybor Corp. v. FAS Technologies, Inc.*, 138 F.3d 1448 (Fed. Cir. 1998) (en banc), the court chose to read the foregoing passage from this Court's *Markman* decision as "addressing under which category, fact or law, claim construction should fall and not whether it should be classified

as having two components, fact and law." *Id.* at 1455.[7] Based on that misreading of *Markman*, the Federal Circuit erroneously perceived this Court "as reaffirm[ing] that, as a purely legal question, we review claim construction *de novo* on appeal including any allegedly fact-based questions relating to claim construction." *Id.* at 1456.[8] The Federal Circuit's misunderstanding of *Markman* has thus led it to the erroneous view that it has the authority to make *sua sponte* claim construction determinations – as though the words of a patent claim exist in a vacuum untethered to the practical context of the device being described and the art surrounding the invention. *See Glaxo Group Ltd. v. TorPharm, Inc.*, 153 F.3d 1366, 1373-74 (Fed. Cir. 1998) (reaffirming Federal Circuit's reading of *Markman* to hold that court can consider alternate grounds for summary judgment because claim construction raises "question of law").

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7. *Compare Markman*, 517 U.S. at 384 n.10 (stating that Court is *not* deciding case on basis of "law/fact distinction" because it has "more specific reason for decision" – which is that judges are better suited than juries to interpret complex legal instruments).

8. That reading of this Court's decision in *Markman* sparked disagreement among some of the Federal Circuit judges. Judge Bryson, for example, perceived that this Court left room for the Federal Circuit to take into account a district court's "superior access to one of the pertinent tools of construction," facts that might be developed to show the meaning of the patent language. *Cybor Corp.*, 138 F.3d at 1463 (Bryson, J., concurring). Chief Judge Mayer (joined by Judge Newman) read *Markman* as "stopp[ing] short of authorizing us to find facts *de novo* when evidentiary disputes exist as part of the construction of a patent claim and the district court has made these findings without committing clear error." *Id.* at 1464 (Mayer, C.J., concurring); *see also id.* at 1473-78 (Rader, J., concurring in part and dissenting in part).

C. The Federal Circuit's Judgment Conflicts With Numerous Court Decisions Holding That Mixed Questions Of Fact And Law Such As Patent Claim Construction May Not Be Decided By Courts Through *Sua Sponte* Rulings

1. Numerous Supreme Court Justices – including Justices Stevens, O'Connor, Scalia, and Ginsburg – have deplored the type of practice applied by the Federal Circuit in this case. They have stressed that *sua sponte* rulings, when made without the necessary procedural safeguards, are contrary to the adversarial nature of our judicial system. For example, Justice Stevens has noted that *sua sponte* rulings issued without notice and a hearing deprive a court of the benefits of the adversary process, which plays a critical role in our system of justice. *Lankford v. Idaho*, 500 U.S. 110, 127 (1991). Justice Scalia has stated that "[t]he rule that points not argued will not be considered is more than just a prudential rule of convenience; its observance, at least in the vast majority of cases, distinguishes our adversary system of justice from the inquisitorial one." *Burke*, 504 U.S. at 246 (Scalia, J., concurring). Those views are in accord with the position taken by Justice Stewart, who described the refusal to consider issues neither briefed nor argued by counsel as "the most basic principle of our adversary system of justice." *United States v. Feola*, 420 U.S. 671, 697 (1975) (Stewart, J., dissenting). The importance of giving counsel a reasonable opportunity to comment on an issue that has been raised *sua sponte* by the court stems from "[o]ur belief that debate between adversaries is often essential to the truth-seeking function of trials." *Lankford,* 500 U.S. at 127*; see also Landon v. Plasencia*, 459 U.S. 21, 36-37 & n.9 (1982) (O'Connor, J.) (opinion for the Court noting that if "hearing is to ensure fairness, it must provide [affected party] an opportunity to present her case effectively" before issues are resolved without proper

briefing and argument). And Justice Ginsburg's opinion for the Court in *Nelson* stressed the due process error of "adding . . . a party and simultaneously amending the judgment to obligate him individually" without affording him an opportunity to be heard. 529 U.S. at 465.

2. The Federal Circuit's decision also conflicts with the consistently applied procedural rule that a party's claim – here, Turn-Key's infringement claim – shall not be dismissed on the merits *sua sponte* "without at least giving plaintiffs notice of the proposed action and affording them an opportunity to address the issue." *Clorox Co. Puerto Rico v. Proctor & Gamble Commercial Co.*, 228 F.3d 24, 30 (1st Cir. 2000). Yet that is exactly what the Federal Circuit did. The court affirmed a ruling of summary judgment against Turn-Key on an alternative ground created *sua sponte* by the appeals court without affording Turn-Key notice and "an opportunity to address the issue." *Id.* When considering the type of mixed questions of law and fact that arise in summary judgment motions, numerous federal circuits have rejected that type of approach as violating a basic right of due process reflected in the Federal Rules of Civil Procedure. *See, e.g., id.* at 30; *Bendet v. Sandoz Pharm. Corp.*, 308 F.3d 907, 912 (8th Cir. 2002) ("A district court may grant summary judgment *sua sponte* only if the 'party against whom judgment will be entered was given sufficient advance notice and an adequate opportunity to demonstrate why summary judgment should not be granted.'") (citation omitted); *Mannesman Demag Corp. v. M/V Concert Express*, 225 F.3d 587, 595 (5th Cir. 2000) ("A court may grant summary judgment *sua sponte* but must provide adequate notice and an opportunity to respond akin to that required by Fed. R. Civ. P. 56(c)."); *Snider v. Melindez*, 199 F.3d 108, 114-15 (2d Cir. 1999) (reversing *sua sponte* direction of entry of a "strike" in judgment dismissing prisoner's complaint); *Otis Elevator Co. v. George*

Washington Hotel Corp., 27 F.3d 903, 910 (3d Cir. 1994) (holding that court "may not grant summary judgment *sua sponte* unless the court gives notice and an opportunity to oppose summary judgment").

The Federal Circuit's *sua sponte* judgment directing entry of summary judgment against Turn-Key without affording Turn-Key notice and an opportunity to oppose such a ruling on the wholly new ground concocted by the court unquestionably runs afoul of a rule followed in at least seven other circuits. As the Ninth Circuit has explained, a court "may dismiss an action on its own motion for failure to state a claim, but only after the court takes the proper procedural steps." *Franklin v. Oregon State Welfare Div.*, 662 F.2d 1337, 1340-41 (9th Cir. 1981) (explaining that process includes "notify[ing] the plaintiff of the proposed action and afford[ing] him an opportunity to submit written argument in opposition"); *see also Massey v. Congress Life Ins. Co.*, 116 F.3d 1414, 1417 (11th Cir. 1997) ("courts have strictly enforced the requirement that a party threatened by summary judgment must receive notice and an opportunity to respond") (collecting cases).

3. The Federal Circuit's judgment conflicts more generally with numerous lower courts at both the federal and state levels that have addressed the proper scope of *sua sponte* rulings in a variety of substantive contexts. Where a *sua sponte* ruling affects substantial property interests without affording the affected party both reasonable notice and an opportunity to be heard, courts have held that such rulings violate a litigant's due process rights. *See, e.g., Brown v. Triple "D" Drilling Co.*, 585 P.2d 987, 990 (Kan. 1978) (finding that a *sua sponte* trial court order reinstating an action on a promissory note against one of the defendants did not afford the defendant due process of law); *Kerrigan, Estess, Rankin & McLeod v. State*, 711 So.2d 1246, 1248-49 (Fla. Dist. Ct. App. 1998) (per curiam) (holding that trial court

sua sponte ruling that law firm's contingency fee contract was unenforceable violated firm's rights to adequate notice and an opportunity to be heard); *Grissom v. Grissom*, 886 S.W.2d 47, 57-58 (Mo. Ct. App. 1994) (reversing trial court sanctions imposed *sua sponte* on two attorneys for failing to meet certain pleading requirements on the ground that *sua sponte* sanctions order in this context failed to afford the attorneys due process rights of notice and a hearing). In *Grissom*, one of the attorneys was not present and therefore had no notice of a possibility of sanctions; the other attorney was present at the hearing, but only became aware of the proposed sanctions minutes before the hearing and had only fifteen minutes to prepare his arguments. The Missouri Court of Appeals held that such notice was inadequate and, further, that any argument that occurred at the hearing on the issue of sanctions was not meaningful given the short notice afforded counsel. *Grissom,* 886 S.W.2d at 57-58.

The positions of those state courts – that a litigant's substantial rights on mixed questions of fact and law may not be adjudicated through *sua sponte* rulings – mirrors the position taken by federal courts of appeals that have addressed analogous claims in a variety of circumstances. The D.C. Circuit, for example, has declined to address *sua sponte* a putative constitutional violation of an employee's complaint about a reassignment. As then-Judge Scalia wrote for the court, "[t]he premise of our adversarial system is that appellate courts do not sit as self-directed boards of legal inquiry and research, but essentially as arbiters of legal questions presented and argued by the parties before them." *Carducci v. Regan*, 714 F.2d 171, 177 (D.C. Cir. 1983). In similar fashion, the Ninth Circuit has held that the Board of Immigration Appeals ("BIA") overstepped constitutional boundaries when it raised and decided *sua sponte* the issue of an asylum seeker's credibility. *Stoyanov v. Immigration & Naturalization Serv.*, 172 F.3d 731, 734-35

(9th Cir. 1999). The court found that the BIA's *sua sponte* credibility ruling violated Stoyanov's right to due process. *Id.*

Even the Federal Circuit itself has reprimanded a lower court for exceeding constitutional limitations with a *sua sponte* ruling. In *Nolen v. Gober*, the Court of Appeals for Veteran Claims *sua sponte* had reconsidered the issue of whether the veteran's claim was well grounded, rather than directly addressing the veteran's contentions regarding the merits of his disability claim. 222 F.3d 1356, 1360 (Fed. Cir. 2000). The Federal Circuit noted that the decision of the Court of Appeals for Veteran Claims that the claim was not well grounded – an issue which neither party raised nor briefed – implicated "fundamental principles of fairness." *Id.* at 1360-61.[9]

As Judge Posner has observed for the Seventh Circuit, "[o]ur system unlike that of the Continent is not geared to having judges take over the function of lawyers." *Hartmann v. Prudential Ins. Co. of America*, 9 F.3d 1207, 1214 (7th Cir.

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9. Numerous other state courts, both of last resort and appellate, as well as federal appellate courts, have ruled that *sua sponte* orders violate due process. *See, e.g., Stewart Title*, 74 F.3d at 836-37; *Holzer v. Jochim*, 557 N.W.2d 57, 58-59 (N.D. 1996); *Storer Communications of Jefferson County, Inc. v. Oldham County Bd. of Educ.*, 850 S.W.2d 340, 341-42 (Ky. Ct. App. 1993); *Gall v. Scroggy*, 725 S.W.2d 867, 869 (Ky. Ct. App. 1987); *see also In re Arthur Treacher's Franchisee Litigation*, 689 F.2d 1137, 1148-49 (3rd Cir. 1982) (Third Circuit found that district court did not properly exercise its discretion when it *sua sponte* without notice ordered different relief which franchisor had not requested and to which franchisee had no opportunity to defend, argue, or present evidence); *Shockley v. Jones*, 823 F.2d 1068, 1072-73 (7th Cir. 1987) (dismissal under Rule 12(b)(6) without notice or hearing is improper because it is a decision on the merits with full res judicata effect); *Cortina v. Cortina*, 98 So.2d 334, 336-37 (Fla. 1957) (Chancellor's *sua sponte* modification of child support decree without notice and hearing was voidable on appeal).

1993). In his view, permitting appellate courts to decide cases on issues not raised or briefed by the parties would effectively eliminate the adversary system of justice in the federal courts. *Id.* at 1215.

D. This Case Is An Ideal And Important Vehicle For Deciding Whether The Federal Circuit's Practice Is Permissible In Patent Cases

The court below issued an unpublished, memorandum decision definitively acknowledging that the district court had erred in rejecting petitioner's claims on the one issue presented by the parties for review to the Federal Circuit. On its own, without notice to the parties, the court reached out to affirm the District Court's judgment of noninfringement based on its *sua sponte* consideration of a different element of the patent claim. As a legal issue, therefore, the case presents the question of the propriety of *sua sponte* rulings in a neat, clean vehicle uncluttered by other collateral issues. This Court can decide whether the Federal Circuit appropriately exercised its authority and then vacate and remand the case for a proper consideration of petitioner's case (including briefing and argument). In reaching a decision on the question presented, the Court need not understand the science or engineering underlying the patent itself but rather must determine simply whether claim construction is suitable for a *sua sponte* ruling.

This case also presents an ideal vehicle because the issue is one of claim construction, which this Court has stressed is a mixed question of law and fact. To properly interpret claim language, a court must have a full understanding of the technical teaching of the patent. However, the Federal Circuit does not and cannot be expected to have a working knowledge of every possible field of invention. It is the role of the parties and their witnesses to supply the court with the information necessary

for it to understand the invention and make an educated interpretation of the patent claims. But the Federal Circuit should not be empowered to disregard those critical advocacy functions in determining the existence of a patent or an infringement of it. Without a proper recognition that the parties' advocacy efforts illuminate the court's decision-making, there is a substantial risk (as exemplified in this case) that the court will not recognize the true scope or meaning of the claim terms in light of the written specifications viewed from the perspective of one of ordinary skill in the art. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979-80, 986 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996). Thus, this case also presents this Court with an opportunity to clarify that the Federal Circuit's reading of *Markman* is erroneous and the likely cause of its misapplication of judicial authority to issue *sua sponte* rulings.

Whether the Court also chooses to issue any broader pronouncement about the general propriety of a court's issuing *sua sponte* rulings is a question the Court need not confront at the certiorari stage. What is evident from the reported cases and commentaries is that the Federal Circuit's practice of issuing *sua sponte* claim construction rulings in patent cases appears to be by far the most consistent and prevalent use of *sua sponte* authority among all the courts in the Nation in an area of litigation involving the substantial constitutional rights of a party. Thus, it is especially appropriate for this Court to rein in the Federal Circuit as an excessive abuser of judicial authority to decide matters without further hearing or argument from the parties.

For that reason as well, this case also raises important questions about the administration of justice for the patent system, devised to protect one of the most significant constitutional rights enjoyed under the Constitution – the right to protect the fruits of one's creative genius with a patent.

But that right is substantially devalued when a patent holder claiming infringement has no assurance of being able to present arguments to the court of last resort in the vast bulk of all patent cases because of the Federal Circuit's assumption of authority to issue *sua sponte* claim construction rulings. Given the Federal Circuit's exclusive jurisdiction over appeals in patent cases, this Court should therefore grant review to correct the court of appeals' errant approach, which encroaches impermissibly on the rights of litigants in patent cases.

CONCLUSION

The petition for a writ of certiorari should be granted. In the alternative, the Court may wish to reverse summarily or to grant, vacate, and remand with instructions to remand the case for further proceedings in the District Court.

Respectfully submitted,

Of Counsel:

DAVID C. FREDERICK
RICHARD H. STERN
KELLOGG, HUBER, HANSEN,
TODD & EVANS, P.L.L.C.
1615 M Street, N.W.
Suite 400
Washington, D.C. 20036
(202) 326-7900

BORIS ZELKIND
Counsel of Record
PATRICIA A. SHACKELFORD
ZELKIND & SHACKELFORD LLP
Sorrento Towers North
5355 Mira Sorrento Place
Suite 290
San Diego, CA 92121
(858) 558-6745

Counsel for Petitioner

February 3, 2004

APPENDIX

APPENDIX A — OPINION OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT DATED SEPTEMBER 8, 2003

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

02-1613, -1614, -1615, -1616

TURN-KEY-TECH, LLC,

Plaintiff-Appellant,

v.

NATIONAL FILM LABORATORY, INC. (doing business as Crest National Optical Media), MUSIC CITY OPTICAL MEDIA, INC., HOLLYWOOD RECORDS, INC., CONCORD DISC MANUFACTURING CORP., KRAUSS MAFFEI CORPORATION, and KRAUSS MAFFEI KUNSTSTOFFTECHNIK GMBH,

Defendants-Appellees.

DECIDED: September 8, 2003

Before MAYER, *Chief Judge*, BRYSON, and LINN, *Circuit Judges*.

LINN, *Circuit Judge*.

Turn-Key-Tech, LLC ("Turn-Key") appeals from decisions of the United States District Court for the Central

Appendix A

District of California, which granted summary judgment in favor of all named defendant manufacturers and sellers of injection mold systems, holding that the accused systems do not utilize the process claimed in U.S. Patent No. 4,422,998 ("the '998 patent"). We *affirm*.

I

The '998 patent is directed to a controlled ejection method for injection molding. Claims 1 and 2 provide:

> 1. A method of cyclic injection molding of plastic where the mold comprises two parts which are separated by a parting surface and at least one cavity situated internally to the boundaries of the parting surface, and wherein each production cycle comprises the steps of:
>
> (a) Combining the two mold parts by moving, in a predetermined direction, the mold parts in relation to each other;
>
> (b) Injecting plastic in a fluid state into a cavity situated within the parting surface;
>
> (c) Solidifying the injected plastic in the cavity, thereby creating a plastic product;
>
> (d) Separating the two mold parts by moving, in a direction opposite to the predetermined direction, said mold parts in relation to each other to create a

substantially enclosed guide conduit having contours defined by the regions of the parting surface and the internally positional cavity/ies that are exposed subsequent to separation and leading in a direction substantially perpendicular to said predetermined direction;

(e) Ejecting the plastic product into said guide conduit; and

(f) Guiding and transporting the ejected product from between the mold parts through the guide conduit.

2. A method according to claim 1, wherein step (f) comprises the step of:

(g) Transporting the ejected product through the guide conduit at an orientation directed by the contours of the guide conduit.

'998 patent, col. 5, l. 27-col. 6, l. 21.

Defendant Kraus Maffei Corp. manufactures and sells an injection molding machine with a mold set ("CD-94 mold") designed to manufacture an optical disc. The other defendants use that machine to manufacture CDs and DVDs. The district court described in its opinion the composition and operation of the CD-94 mold, and none of the parties raises any disputed issues of material fact regarding the district court's description of the device used to perform the accused process.

Appendix A

The primary dispute in this case focuses on the construction of the term "guide conduit" found in limitation (d) of claim 1. In such cases, "[w]here the parties do not dispute any relevant facts regarding the accused product . . . but disagree over possible claim interpretations, the question of literal infringement collapses into claim construction and is amenable to summary judgment." *General Mills, Inc. v. Hunt-Wesson, Inc.*, 103 F.3d 978, 983 (Fed. Cir. 1997) (citing *Athletic Alternatives, Inc. v. Prince Mfg., Inc.*, 73 F.3d 1573, 1578 (Fed. Cir. 1996)). In its claim construction ruling, the district held that the "substantially enclosed guide conduit" is "a tube or channel that is almost entirely closed in from the outside environment, and that carries materials from one place to another and that helps to direct the materials' progressive motion." The district court later clarified its claim construction, holding that "the guide conduit itself nevertheless must help to carry and direct the molded product's progressive motion." Based on that modified construction, the district court granted defendants' motions for summary judgment of non-infringement, concluding that the guide rails, kicker plate, and discharge chute of the CD-94 mold do not comprise a guide conduit as construed by the court.

We hold that the district court erred in its interpretation of guide conduit. A review of the claim language, written description, and prosecution history show that a guide conduit is simply a passageway through which a plastic product is moved. The plain language of the claims describes the guide conduit as an area within the mold. The district court's definition attributes a function to the guide conduit, namely that it direct the material's motion. That is an added limitation not found in the claim language or properly imposed by the intrinsic record.

Appendix A

Even though the district court unduly narrowed the guide conduit limitation, summary judgment of non-infringement is nonetheless appropriate in this case because under the correct claim construction, the CD-94 mold still does not have a guide conduit as defined by the claims. *See Zelinski v. Brunswick Corp.*, 185 F.3d 1311, 1316 (Fed. Cir. 1999) (affirming grant of summary judgment of non-infringement despite district court's unduly narrow claim construction). Because the CD-94 mold lacks a guide conduit, the defendant manufacturers and users of the CD-94 mold do not practice the claimed method of injection molding. To the extent that there is a passageway through which a plastic product is moved, that passageway is not formed by "[s]eparating the two mold parts" as required by the claims. The cavity created by the separation of the mold parts is not a guide conduit. Part (e) of claim 1 requires that the plastic product be ejected "into said guide conduit." The plastic product is already in the cavity upon separation. Moreover, the guide conduit must "lead[ ] in a direction substantially perpendicular to said predetermined direction." The cavity created by separating the two mold parts in the device used in the accused process only leads in a direction *parallel* to the predetermined direction. It is not until the product begins moving in a perpendicular direction that it enters the guide conduit. In the CD-94 mold, the plastic product moves perpendicularly into a discharge chute with the assistance of the guide rails. Neither the guide rails nor the discharge chute are created by the separation of the mold parts. Thus, use of the CD-94 mold does not involve a guide conduit as described in the method claim, and no reasonable juror could conclude otherwise.

Appendix A

With respect to infringement under the doctrine of equivalents, the parties dispute whether the amendment to claim 1 constituted a narrowing amendment and triggered prosecution history estoppel. The original claims did not require that the guide conduit be "substantially enclosed." Specifically, the relevant June 10, 1983 amendment to claim 1 provided:

> (d) Separating the two mold parts by moving, in a direction opposite to the predetermined direction, said mold parts in relation to each other *to create a substantially enclosed guide conduit having contours defined by the regions of the parting surface and the internally positional cavity/ies that are exposed subsequent to separation and leading in a direction substantially perpendicular to said predetermined direction*;
>
> (e) Ejecting the plastic product into [a] *said* guide conduit [which leads in a direction substantially perpendicular to said predetermined direction]; and
>
> (f) Transporting the ejected product through the guide conduit[, the contours of said conduit, substantially being defined by regions of the parting surface and the internally positioned cavity/ies, which are exposed subsequent to separation].

We agree with the district court that this is a narrowing amendment. The original claim did not require that the guide

conduit be substantially enclosed. Turn-Key admits that the amendment narrowed the claim in that respect, but argues that the claim was broadened because the amended claim removed a limitation that substantially all of the contours of the guide conduit be defined by regions of the parting and cavity surfaces. We disagree. There is little meaningful difference between the language "the contours of said guide conduit *substantially being* defined by the regions of the parting surface . . ." and "a substantially enclosed guide conduit *having* contours defined by the regions of the parting surface. . . ." Regardless whether the claim was broadened in any way, the claim was narrowed with respect to the new requirement that the guide conduit be substantially enclosed. Prosecution history estoppel was triggered with respect to that limitation. *See generally Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 737-40 (2002) (noting that narrowing amendments may give rise to a rebuttable presumption of prosecution history estoppel) (citing *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 33 (1997)). Other than arguing that the claim was not in fact narrowed, Turn-Key did not present any argument to this court that it overcame any presumption of surrender.

Even if Turn-Key could rebut any presumption of surrender, no reasonable juror could conclude that the accused CD-94 mold operates in the same *way* as the claimed invention. The claims require that the mold parts separate to create a substantially enclosed guide conduit. While the use of guide rails and a discharge chute may perform the same function and achieve the same result as the claimed process, they do so in a different way. Because the way in which the accused device operates is different from the method claimed,

the differences are not insubstantial, the claims cannot be infringed under the doctrine of equivalents, and no reasonable juror could conclude otherwise.

II

The district court misconstrued the term "guide conduit." That error, however, was harmless because under the correct claim construction, the CD-94 mold lacks a guide conduit. Without a guide conduit, the defendant users and manufacturers of the CD-94 mold do not practice the claimed method. Therefore, summary judgment of non-infringement, both literally and under the doctrine of equivalents was appropriate.

APPENDIX B — JUDGMENT OF THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF CALIFORNIA FILED AUGUST 9, 2002

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CV 01-4158 LGB (MCx)
CV 01-4165 LGB (MCx)
CV 01-4536 LGB (MCx)
CV 01-5314 LGB (MCx)

IN RE: TURN-KEY-TECH MATTERS AND ALL CONSOLIDATED ACTIONS

This Document Relates to: All Actions

JUDGMENT

Pursuant to this Court's June 10, 2002 summary judgment order regarding non-infringement of U.S. Patent 4,422,998 and August 9, 2002 order granting Defendants Hollywood Records and Krauss Maffei Kunststofftechnik's motion for summary judgment, Defendant National Film Laboratory Inc., dba Crest National Optical Media's motion to voluntarily dismiss its remaining counterclaims without prejudice pursuant to Fed. R. Civ. P. 41(a) (2), and Defendants Krauss-Maffei, Krauss Maffei Kunststofftechnik, Concord Disc Manufacturing Corp., Music City Optical Media, Inc., and Hollywood Records, Inc.'s motion to dismiss all remaining counterclaims and claims without

prejudice pursuant to Fed. R. Civ. P. 41(a) (2), IT IS HEREBY ORDERED, ADJUDGED, AND DECREED AS FOLLOWS:

1) Defendants have not infringed and do not infringe the 4,422,998 patent;

2) Plaintiff Turn-Key-Tech shall take nothing by its complaint; and

3) This judgment hereby terminates Case Nos. CV 01-4158, CV 01-4165, CV 01-4536, and CV 01-5314.

IT IS SO ORDERED.

Dated: August 9, 2002

s/ Lourdes G. Baird
LOURDES G. BAIRD
United States District Judge

APPENDIX C — ORDER OF THE UNITED STATES DISTRICT COURT FOR THE CENTRAL DISTRICT OF CALIFORNIA FILED JUNE 6, 2002 AND ENTERED JUNE 10, 2002

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CV 01-4158 LGB (MCx)
CV 01-4165 LGB (MCx)
CV 01-4536 LGB (MCx)
CV 01-5314 LGB (MCx)

IN RE: TURN-KEY-TECH MATTERS AND ALL CONSOLIDATED ACTIONS,

This Document Relates to: All Actions

ORDER GRANTING DEFENDANTS CREST, KM, CONCORD, AND MC'S MOTIONS FOR SUMMARY JUDGMENT

I. INTRODUCTION

In these consolidated cases, Turn-Key-Tech ("Turn-Key") accuses National Film Laboratories, Inc. d.b.a. Crest National Optical Media ("Crest"), Krauss-Maffei Corporation ("KM"), Concord Disc Manufacturing Corporation ("Concord"), Music City Optical Media Inc., ("MC"), and Hollywood Records of patent infringement. Specifically, it alleges that these Defendants have been practicing a process claimed in U.S. Patent 4,422,998 patent ("the 998 patent") which was issued to Jens Ole Sorensen on December 27, 1983. Turn-Key brings the instant actions as the exclusive licensee of the '998 patent which expired

on April 22, 2002. The Court held a *Markman* hearing on January 14, 2001 and issued its order ("*Markman* Order") construing the contested patent claims on January 18, 2001. Defendants KM, Crest, Concord, and MC now bring two motions for summary judgment regarding literal non-infringement and non-infringement under the doctrine of equivalents. Because both motions for summary judgment make essentially similar arguments, the Court collectively deals with them here.

For reasons set forth below, the Court GRANTS Defendants' motions for summary judgment.

II. FACTUAL AND PROCEDURAL BACKGROUND

Turn-Key accuses Defendants of infringing the '998 patent. Specifically, at issue in the '998 patent are Claims 1, 2, 5, and 16. The following facts are taken from the *Markman* Order. Moreover, undisputed facts regarding Defendants' allegedly infringing product, the CD-94 mold, are delineated here as well.

A. Background on the Patent

The '998 patent entitled "Controlled Ejection Method for Injection Molding" was issued to Sorensen on December 27, 1983 and relates to the field of injection molding plastics. Injection molding is a manufacturing process used to make plastic products by injecting fluid plastic into a mold cavity and allowing the plastic to solidify into the general shape of the mold cavity to produce the plastic part. Once the product is removed from the mold, the process continuously repeats.

Sorensen stated that the method protected by the '998 patent constituted an improvement from prior art in terms of the orientation, speed of injection, and the sterility involved. '998 patent at Col. 1. 11. 27-30. The method, moreover, could be performed basically without the need of auxiliary moving parts or vulnerable stationary elements such as pins and blades. *Id.* at 11.

B. Claim 1 of the '998 Patent

Though Claims 1, 2, 5, and 6 of the '998 patent are specificaly at issue in the present litigation, Claim 1 is the only independent claim in the '998 patent. Moreover, because the Court finds an analysis of Claim 1(d) to be dispositive for purposes of the instant motions, only Claim 1 is directly addressed here. Claim 1 reads:

> [] a method of cyclic injection molding of plastic where the mold comprises two parts which are separated by a parting surface and at least one cavity situated internally to the boundaries of the parting surface, and wherein each production cycle comprises the steps of:
>
> > (a) Combining the two mold parts by moving, in a predetermined direction, the mold parts in relation to each other;
> >
> > (b) Injecting plastic in a fluid state into a cavity situated within the parting surface;

> (c) Solidifying the injected plastic in the cavity, thereby creating a plastic product;
>
> (d) Separating the two mold parts by moving, in a direction opposite to the predetermined direction, said mold parts in relation to each other to create a substantially enclosed guide conduit having contours defined by the regions of the parting surface and the internally position[ed] cavity/ies that are exposed subsequent to separation and leading in a direction substantially perpendicular to said predetermined direction;
>
> (e) Ejecting the plastic product into said guide conduit; and
>
> (f) Guiding and transporting the ejected product from between the mold parts through the guide conduit.

Exhibit 2 to Decl. of Robinson in Support of KM's Motion, '998 patent at Col. 5 11. 27-38, Col. 6 11. 1-16.

C. Claim Interpretation Law

In *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), the Supreme Court held that the interpretation of a patent claim is a matter of law exclusively within the scope of the court and is not a factual question for the jury.

Id. at 372. The *Markman* decision suggested that trial courts could consider various types of evidence when interpreting a patent, including expert testimony. *See id.* at 388-90. Shortly after the Supreme Court handed down *Markman*, the Federal Circuit expanded on the Court's dicta concerning evidence available to trial courts in interpreting patent claims. *See Vitrionics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1581-83 (Fed. Cir. 1996). The Federal Circuit held that if intrinsic evidence can, by itself, resolve ambiguity in a patent term, then a court may not rely on extrinsic evidence, such as expert testimony, to construe the term. *Id.* at 1583. Trial courts may use extrinsic evidence only when intrinsic evidence fails to illuminate the meaning of the disputed claim. *Id.* Moreover, extrinsic evidence cannot broaden the reach of a claim or contradict explicit language. *Id.* Thus, courts can only examine extrinsic evidence if the evidence does not contradict the claim language, the specification, or the prosecution history but instead supplements it. *Id.* at 1584-85.

The Federal Circuit detailed a hierarchy of specific types of evidence that courts may consider. Thus, when interpreting a patent, trial courts must first look at the language of the claim itself. *Id.* at 1582. Courts should typically construe terms by their common, customary meaning, but a patentee is allowed to define his own terms in the specification section of the patent. *Id.* Therefore, courts must always review the specification which, when setting forth an embodiment of the invention, frequently provides explicit definitions of the claim terms. *Id.* The language in the specification is dispositive, and "it is the single best guide to the meaning of the disputed term." *Id.* However, a patent's claims are not limited to the specification's best mode, preferred

embodiment, specific objects, or illustrative examples, and it is erroneous to read limitations from the specifications into the claims. *See Laitram Corp. v. Cambridge Wire Cloth Co.*, 863 F.2d 855, 865 (Fed. Cir. 1988) ("References to a preferred embodiment, such as those often present in a specification, are not claim limitations."); *Rolls-Royce Ltd. v. GTE Valeron Corp.*, 800 F.2d 1101, 1108 (Fed. Cir. 1987) ("Reference to an object does not constitute in itself a limitation in the claims."). In addition, a court may consider the prosecution history of the patent as evidence of meaning. *Id.* This history contains the complete record of all the filings and examinations before the Patent and Trademark Office, including representations made by the applicant regarding the significance of claims and terms. *Id.* The history also limits the interpretation of terms by recording the exclusion of any term definition disclaimed during the prosecution. *Id.*

D. Markman Order Regarding Claim 1 of the '998 patent

In applying the aforementioned standards, the Court concluded that:

> 1. "Two mold parts" refers to the mating halves of the mold as a whole and not to individual components that the halves may possess.
>
> 2. "Parting surface" refers to the faces of the two mold parts that either touch or lie adjacent when the mold parts are brought together. The faces of the two mold parts must touch each other at some point.

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3. "Cavity" refers to the hollow space that is surrounded by a parting surface.

4. "Combining" refers to the act of bringing the two mold halves into or joining the two mold halves in a close union or whole by moving one or both of them towards each other.

5. "Injecting plastic in a fluid state into a cavity situated within the parting surface" refers to the act of forcefully introducing plastic that is capable of flowing into a hollow space surrounded by a parting surface.

6. "Solidifying the injected plastic in the cavity, thereby creating a plastic product" refers to the act of changing the fluid plastic to a state where the plastic has relative firmness, coherence of particles, or persistence of form.

7. "Separating" in Element (d) refers to the act of keeping apart or dividing the two mold halves by moving one or both of them away from each other.

8. "[T]o create a substantially enclosed guide conduit" in Element (d) refers to the process whereby the result is a substantially enclosed guide conduit.

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9. The "substantially enclosed guide conduit" refers to a tube or channel that is almost entirely closed in from the outside environment, and that carries materials from one place to another and that helps to direct the materials' progressive motion.

10. The portion of the Element (d) language stating that the "substantially enclosed guide conduit having contours defined by the regions of the parting surface and the internally position[ed] cavity/ies that are exposed subsequent to separation" refers to the requirement that the outlines of the body or figure of the conduit be formed only from the regions of the parting surfaces and cavity surfaces that are revealed or uncovered after the "separating" process so that they can be viewed by the eye.

11. The portion of the Element (d) language stating that the "substantially enclosed guide conduit" lead "in a direction substantially perpendicular to [the] said predetermined direction" refers to the requirement that the conduit lead in a direction almost entirely perpendicular to the predetermined direction that one or both of the mold parts were moving toward the other during the process when they were being brought together.

12. "Ejecting the plastic product into said guide conduit" refers to the process of expelling or otherwise driving the molded plastic product into the conduit.

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> 13. "Guiding and transporting the ejected product from between the mold parts through the guide conduit" refers to the process of carrying or directing of the product from the space between the mold parts to the end or to an exit of the conduit.

Markman Order at 29-30.

E. Defendants' CD-94 Mold

KM manufactures and sells optical disc manufacturing systems to companies which manufacture and distribute optical discs such as CDs, DVDs, CD-R, CD Single, DVD Mini, and a full range of optical business cards. KM's Statement of Uncontroverted Facts and Conclusions of Law ("KM's Statement of Facts") ¶ 5. KM customers MC, Crest, and Concord use the KM optical disc manufacturing system. *Id.* ¶ 8. The KM equipment includes an injection molding machine equipped with a mold set ("CD-94 mold") designed to manufacture an optical disc. *Id.* ¶ 9; Crest's Statement of Uncontroverted Facts and Conclusions of Law ("Crest's Statement of Facts") ¶ 2. The CD-94 mold has a movable mold half and a stationary mold half. Crest's Statement of Facts ¶ 4; Turn-Key's Statement of Genuine Issues of Material Fact ("Turn-Key's Statement of Genuine Issues) ¶¶ 5-6. The female mold part has a female cavity surface. KM's Statement of Facts ¶ 13. Radially outside of the female cavity surface is the mold ring. *Id.* ¶ 15. The female mold part also contains a conical side which connects the face of a female centering ring with the mold ring. *Id.* ¶ 16. In the center of the female cavity surface is a sprue bushing

including a sprue channel through which molten resin is forced during the molding process. *Id.* ¶ 17. The female centering ring has four radial channels. The first radial channel contains a mobile guide rail located near the top of the female mold part. *Id.* ¶ 18. The rail is actuated by an external pneumatic cylinder and is attached to the cylinder's rod. *Id.* The second radial channel contains a second mobile guide rail located near the bottom of the female mold part. *Id.* ¶ 19. This rail is also actuated by an external pneumatic cylinder and is attached to the cylinder's rod. *Id.* The third radial channel contains a movable kicker plate which pushes the molded disc along the movable guide rails into a discharge chute. This kicker is actuated by an external pneumatic cylinder and is attached to the cylinder's rod. *Id.* ¶ 20. The fourth radial channel is the discharge chute which allows the disc to exit from the mold after the disc is formed. *Id.* ¶ 21. It is a permanent opening in the female mold part and its shape does not change during the mold cycle. *Id.*; *see* Crest's Statement of Facts ¶ 26. At the exit of the chute is an external rail upon which the disc travels after discharge for further processing. KM's Statement of Facts ¶ 22.

The male mold part contains a male cavity surface. KM's Statement of Facts ¶ 23. Radially outside of the male cavity surface is the stamper ring zone. The stamper is supported by a stamper mirror. *Id.* ¶ 24. In the center of the male cavity surface is the face of the ejector sleeve assembly and radially outside of the ejector sleeve is the guide bushing and the stamper support bushing. *Id.* ¶¶ 25-26. During the injection molding process, the male and female mold parts are brought together and clamping force is applied. Resin is

subsequently injected into the mold cavity and eventually cools to form the disc. *Id.* ¶ 28; Turn-Key's Statement of Genuine Issues ¶¶ 16-18; Crest's Statement of Facts ¶ 5. Once the disc is hardened, the mold parts are separated with the result that the disc is positioned approximately in the middle of the separated mold parts. KM's Statement of Facts ¶ 28. The space created by the separation of the mold parts is generally cylindrical in shape. Crest's Statement of Facts ¶ 32. The mobile guide rails are subsequently advanced from behind the conical side wall of the female mold part into the space between the separated mold parts to hold the disc at two points. KM's Statement of Facts ¶ 29. With the disc being held by the mobile guide rails, operation of the sprue removal device separates the sprue from the disc so as to form the center hole of the disc. *Id.* Once the sprue is removed, the disc is then pushed into the discharge chute in the female mold part by the movable kicker plate which is actuated from behind the parting surface of the female mold part into the space between the separated mold parts. *Id.*

III. LEGAL STANDARDS AND ANALYSIS

A. Legal Standards

Rule 56 of the Federal Rules of Civil Procedure provides that a court shall grant a motion for summary judgment if "the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." Fed. R. Civ. P. 56 (c) . Material facts are those that may affect the outcome of the case. *See Anderson v. Liberty Lobby, Inc.*,

477 U.S. 242, 248 (1986). A dispute as to a material fact is genuine if there is sufficient evidence for a reasonable jury to return a verdict for the nonmoving party. *Id.*

The party moving for summary judgment bears the initial burden of informing the district court the basis of the summary judgment motion, and of demonstrating the absence of a genuine issue of material fact for trial. *See Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986); *Katz v. Children's Hosp. of Orange County*, 28 F.3d 1520, 1534 (9th Cir. 1994). On an issue for which the nonmoving party has the burden of proof at trial, the moving party need only point out "that there is an absence of evidence to support the nonmoving party's case." *Celotex*, 477 U.S. at 325. Once this initial burden is satisfied, the non-moving party is required to "go beyond the pleadings and by her own affidavits, or by the depositions, answers to interrogatories, and admissions on file, designate 'specific facts' showing that there is a genuine issue for trial." *Celotex*, 477 U.S. at 324 (internal quotations omitted); *see Nilsson, Robbins, Dalgarn, Berliner, Carson & Wurst v. Louisiana Hydrolec*, 854 F.2d 1538, 1544 (9th Cir. 1988). Where the standard of proof at trial is preponderance of the evidence, the non-moving party's evidence must be such that a "fair-minded jury could return a verdict for the [non-moving party] on the evidence presented." *Anderson*, 477 U.S. at 252.

The determination of infringement is a two-step process. First, the court must construe the asserted claims as a matter of law to ascertain their meaning and scope. *Dawn Equip. Co. v. Kentucky Farms Inc.*, 140 F.3d 1009, 1014 (Fed. Cir. 1998). Second, the claims as construed are compared to the

allegedly infringing device. *Id.* To infringe a claim, each claim limitation must be present in the accused product, either literally or equivalently. *Sofamor Danek Group, Inc. v. DePuy-Motech, Inc.*, 74 F.3d 1216, 1220 (Fed. Cir. 1996). Where the parties do not dispute any relevant facts regarding the accused product, but disagree over possible claim interpretation, the question of literal infringement collapses into claim construction and is amenable to summary judgment. *Rheox, Inc. v. Entact, Inc.*, 276 F.3d 1319, 1324 (Fed. Cir. 2002).

The doctrine of equivalents prevents an accused infringer from avoiding liability for infringement by changing only minor or insubstantial details of a claimed invention while retaining the invention's essential identity. *Festo Carp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 2002 WL 1050479 * 8 (May 28, 2002). But actions by the patentee, including claim amendments and arguments made before the Patent Office, may give rise to prosecution history estoppel. *Id.* Prosecution history estoppel precludes a patentee from obtaining under the doctrine of equivalents coverage of subject matter that has been relinquished during the prosecution of its patent application. *Id.* Pursuant to the Supreme Court's recent *Festo* decision, prosecution history estoppel does not necessarily completely bar the inventor from asserting infringement against any equivalent to the narrowed element. *Id.* * 11. Rather, though estoppel can bar challenges to a wide range of equivalents, its reach requires an examination of the subject matter surrendered by the narrowing amendment. *Id.*

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B. Analysis

Because Claims 2, 5, and 6 depend from Claim 1 and incorporate all of its limitations, Defendants focus upon Claim 1(d) in the instant motions for summary judgment. Specifically, they contend that Crest's CD-94 molds do not infringe the '998 patent because they do not have a "guide conduit" meeting the following criteria identified by this Court's *Markman* order: 1) that the conduit be a "tube" or "channel" leading almost entirely perpendicular to the direction that the mold parts move apart, 2) that the "tube" or "channel" be brought into existence by the moving apart of the two halves of the mold, 3) that the contours of the conduit be entirely defined by parting surfaces and cavity surfaces of the mold, and 4) that the conduit "guide" the molded plastic parts out of the mold. "There is no structure in Crest's CD-94 molds that even comes close to fulfilling the Court's criteria for a 'guide conduit.'" Crest's Motion at 1. Defendants argue that Turn-Key cannot invoke the doctrine of equivalents to remedy this lack of the required guide conduit.

In opposition, Turn-Key argues that Defendants' usage of the CD-94 mold indeed includes every step and limitation of at least Claim 1 of the '998 patent and thus literally infringes the '998 patent. In doing so, they contest each and every one of Defendants' above-mentioned arguments. However, Turn-Key alternatively posits that fact questions exist as to whether Defendants use an "equivalent" process, thereby precluding summary judgment. Turn-Key's Opposition to Ds' Motions for SJ at 25.

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1. Literal Infringement

It is unnecessary for the Court to address each and every one of the parties' arguments for purposes of the instant motions for summary judgment. This is because Turn-Key's argument that the cylindrical space created by the separation of the movable mold part and the stationary female mold part constitutes the required "guide conduit" suffers from a number of fatal flaws, even assuming that the space is a "tube" or "channel" leading almost entirely perpendicular to the direction that the mold parts move apart. Turn-Key's Opposition at 17; Crest's Reply Brief at 5-8; KM's Reply Brief at 6-8.

Turn-Key argues that the "guide conduit" is a narrow, 8 millimeter channel whose contours include a crescent-shaped exit port defined by the conical wall parting surface. Turn-Key's Opposition at 17. This exit port, in turn, "communicates with the discharge chute" and "is the only place where the channel of the [ ] mold is open to the outside environment." *Id.* The evidence submitted including the animations proffered by both Turn-Key and Defendants, however, convinces the Court that the space identified by Turn-Key as the "guide conduit" simply does not perform any guiding function. That is, it does not "carry materials from one place to another and [does not] help[ ] to direct the materials' progressive motion." *Markman* Order at 15, 30. It appears that three specific structures function to carry the molded disc product from between the separated mold parts and to direct the product's progressive motion out of the mold: 1) the mobile guide rails, 2) the kicker plate, and 3) the discharge chute. The guide rails hold the molded

product by its edges in v-shaped grooves and the kicker plate subsequently pushes the product into the discharge slot. Exhibit 5 to Decl. of Robinson in Support of KM's Motion for SJ, Decl. of Hillenbrand ¶ 27. None of these structures, however, can make up the required "guide conduit" for two basic reasons.

First, they cannot satisfy this Court's requirement that the outlines of the body of the "guide conduit" be formed only by the regions of the parting surfaces and cavity surfaces. *Markman* Order at 18. The guide rails and kicker plate are attached to rods protruding from the bottom of pneumatic cylinders which are themselves attached to the exterior of the female mold part. Exhibit 5 to Decl. of Robinson in Support of KM's Motion for SJ, Decl. of Hillenbrand ¶ 10. Both the guide rails and the kicker plate are retractable pieces which remain behind the conical side wall of the female mold part until after the "separating" process is finished and the molded product is already situated in the middle of the separated mold parts. *Id.* ¶ 27. Only then are the guide rails "advanced" from behind the conical wall to hold the molded product at two points. *Id.* In a similar vein, the kicker plate is "actuated" from behind the conical wall into the space between the separated mold parts in order to push the disc into the discharge slot only after the sprue has already been removed from the molded disc. *Id.* Clearly, the guide rails and the kicker plate cannot constitute "parting surface" because they remain behind the wall of the female mold part during the "combining process" and as such, do not qualify as "the faces of the two mold parts that either touch or lie adjacent when the mold parts are brought together in the

'combining process.'"[1] *Markman* Order at 7. Nor can they constitute "cavity surface" since this Court has defined that phrase as "the hollow space that is surrounded by a parting surface." *Id.* at 9.[2] Under this definition, the cavity surfaces are those surfaces of the cavity that ultimately touch the molten plastic upon injection. However, both the guide rails and the kicker plate clearly never actually touch the molten plastic upon injection since they are in their retracted position during that stage of the process. Similarly, the discharge chute constitutes neither "parting surface" nor "cavity surface" since it passes

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1. Moreover, the guide rails and kicker plate cannot constitute "parting surface" for an even more basic reason. In the *Markman* Order, the Court noted that "though the mold halves can possess component parts, 'the mold comprises two parts' language should be interpreted as 'referring to the mold halves of the mold as wholes, and not to their individual components." *Markman* Order at 6. The guide rails and the kicker plate fall under the rubric of these "individual components" and as such cannot be considered "mold parts." In addition, they therefore cannot be considered to be the "faces" of the two mold parts that touch or lie adjacent during the "combining process." See Crest's Reply Brief at 17; KM's Reply Brief at 15-17.

2. Because the *Markman* Order may have been unclear as to the specific parameters of "cavity surface," the Court here clarifies that the phrase refers to the portion of the "parting surface" that forms the contours of the "hollow space" in which the disc is actually molded. The Court agrees with KM that this is the only meaning of "cavity" that is consistent with other uses of this term elsewhere in Claim 1 of the '998 patent including Claim 1(c) which requires "[s]olidifying the injected plastic in the cavity." KM Brief at 14; KM's Reply Brief at 6; *see Phonometrics, Inc. v. Northern Telecom, Inc.*, 133 F.3d 1459, 1465 (Fed. Cir. 1998) ("[a] word or phrase used consistently throughout a claim should be interpreted consistently").

through the side of the female mold part and is situated on a plane different from that of the parting or cavity surfaces. Turn-Key's attempts to characterize the chute as an "internally positioned cavity" fails, given this Court's clarification of the term "cavity" because the chute clearly has nothing to do with and is not part of the molding cavity. KM's Reply Brief at 6; *see* Turn-Key's Opposition at 19 n. 6.

Second, the guide rails, kicker plate, and discharge chute cannot make up the required "guide conduit" for an independent reason—they are not the "result of the process of bringing apart the molds." *Markman* Order at 14. This Court construed Claim 1(d) to require that "[t]he separation of the mold parts thus results in something—the conduit—that was not there when the mold parts were in the process of being brought together." *Id.* However, each one of these three structures clearly exists even during the "combining process" when the mold parts are being brought together. Both the guide rails and the kicker plate are separate plastic parts that remain constant in shape throughout each mold cycle but extend into the space between the mold halves after the "separating" process has been completed. Turn-Key argues that the movement of the rails into the space is a "direct result" of the separation because "[w]ithout the separation, [they] sit up against the adjacent parting surface of the movable mold half not able to move any further into the interior of the mold." Turn-Key's Opposition at 18. This argument, however, shows that the separation of the mold parts is, at best, a "precondition required to clear the way for movement of the guide rails." Crest's Reply Brief at 15. The Court agrees with Defendants that providing a precondition for other actions to "create" a guide structure is not equivalent to "creating" the guide conduit by the "[s]eparating [of] the two

mold parts" as required by the '998 patent. *Id.* This point is accentuated by the fact that in the invention covered by the '998 patent, the "result" of the two mold halves moving apart is a tube that did not exist in any form prior to the "separation" process. For similarly obvious reasons, the chute is not the "result" of the separation of the mold parts because its form is fixed in shape and is not altered by the "separating" process. The fact that access to the chute is blocked until separation of the mold parts does not qualify as "creating" the conduit, for it merely entails the removal of an obstacle in front of the preexisting chute.

Turn-Key makes additional arguments in an effort to avoid summary judgment regarding literal non-infringement of the '998 patent. Turn-Key argues that "the evidence that the guide conduit of the [CD-94 mold] helps to direct the progressive motion of the disc is overwhelming." Turn-Key's Opposition at 20. Turn-Key posits that

> [t]he narrow channel restricts the disc's progressive motion [because] the disc cannot travel outside of the narrow channel boundaries, and will remain within those boundaries until it exits the conduit. There is no room for the disc to flip or turn over within the channel. . . . The guide conduit is so narrow that the guide rails can only be brought into the conduit in exact alignment with the direction in which the channel leads. . . . The guide rails work in concert with and within the constraints of the conduit to direct the disc from between the mold parts.

Id. at 20-21. This argument amounts to nothing more than the proposition that the channel constitutes the required

"guide conduit" because it provides the space in which other structures, namely the guide rails, perform the guiding function. Such a proposition, however, fails because the Court agrees with Defendants that "if this were enough, then any substantially enclosed mold from which parts are removed would have a 'guide conduit'." Crest's Reply Brief at 11. To adopt such a reading would effectively render Claim 1(d) meaningless. In addition, such a proposition fails to comport with this Court's *Markman* Order. During the *Markman* hearing, Defendants requested that the Court require the "guide conduit" be the *sole* mechanism helping to direct the molded products' progressive motion but the Court rejected such a position. *Markman* Order at 16 n.5. In contrast, Turn-Key requested that the Court construe the "guide conduit" to be merely a "passageway through which the molded product is guided and transported" and argued that the construction of the "guide conduit" as helping to direct the travel of the molded plastic product in Claim 1 rendered Claim 2 which specifically requires the orientation of the molded plastic product to be directed by the contours of the "guide conduit" superfluous. *Id.* at 14-15. The Court rejected both of Turn-Key's contentions and in doing so, noted that

> Claim 1 is an independent claim which merely introduces the guide conduit and Claim 2, a dependent claim, describes the guide conduit's role in one of the steps of the patented process. It is inconsistent for Turn-Key to concede that the guide conduit plays a role in directing the molded plastic product's orientation on the one hand and then to reject a definition of the conduit taking that role into consideration on the other hand.

Id. at 15-16. Consequently, if the *Markman* Order is not a model of clarity, the Court clarifies that though auxiliary parts such as

guide rails can certainly be used with the '998 patent as a supplement, the guide conduit itself nevertheless must help to carry and direct the molded product's progressive motion. Turn-Key is essentially resurrecting its argument that the "guide conduit" need only be a passageway; that argument was buried by the Court in its *Markman* Order and remains so here on Defendants' instant motions for summary judgment.

Turn-Key also argues that the crescent-shaped exit port "determines the required direction of travel and orientation of the disc within the guide conduit" because it "only allow[s] the disc to pass if [the disc] is precisely aligned with the exit opening." Turn-Key's Opposition at 21. There is, however, no evidence to suggest that this opening acts as anything more than the place to which the guide rails and kicker plate together push the disc through. To hold that the opening "guides" the disc would once again render Claim 1(d) meaningless since any substantially enclosed mold with an opening through which parts are removed would constitute the required "guide conduit."

Turn-Key notes that the contours of the space between the mold parts "include rectangular openings that control the position and configuration of the guide rails." *Id.* Turn-Key stresses that these rectangular openings "play a role in holding the guide rails or stabilizing the guide rails when the guide rails are moved into the guide conduit." *Id.* Thus, "the contours of the guide conduit cooperate with the guide rails and control their orientation and geometry-helping to direct the disc's progressive motion." *Id.* This argument too fails, for the Court agrees with Crest that "[m]erely providing a

location through which a guiding device can move is not the same as performing the actual guiding function." Crest's Reply Brief at 13.

In sum, Turn-Key's efforts to muster up evidence that the contours of the cylindrical space resulting from the separating of the mold parts carries or helps to direct the movement of the molded disc product fall far short. Consequently, Defendants are entitled to summary judgment regarding the literal non-infringement of the CD-94 mold.

2. The Doctrine of Equivalents

In their opening briefs, Defendants argued that Turn-Key was barred from claiming infringement under the doctrine of equivalents for a number of reasons. Crest's Motion at 8-14; KM's Motion at 18-22. First, they cited to the Federal Circuit's *Festo* decision for the proposition that an amendment that narrows the scope of a claim for any reason related to the statutory requirements for a patent will give rise to prosecution history estoppel with respect to the amended claim element. "When a claim amendment creates prosecution history estoppel, no range of equivalents is available for the amended claim element." Crest's Motion at 8-9; *see* KM's Motion at 18. In an interrelated argument, Defendants contended that even under pre-*Festo* case law, prosecution history estoppel prevents Turn-Key from relying upon the doctrine of equivalents. In *Warner-Jenkinson Co, Inc. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 30 n. 5 (1997), the Supreme Court noted that in a number of cases, it had applied the principle of prosecution history estoppel to amended claims where the original claim was rejected

based on the lack of invention over prior patents. Here, Defendants point out that Sorensen amended Claim 1(d) because the Patent Office had determined that, without the amendment, the "guide conduit" described in the '998 patent application would have been redundant with what was already in the prior art. Crest's Motion at 10; *see* Decl. of Taillieu, Exhibit A-3 at 2 ("Claims 1, 2, 3, 5/1, 5/2, 5/3, 6 are rejected under 35 U.S.C. § 103 as being unpatentable over Smolenski alone or in view of Tait"); *id.*, Exhibit A-7 at 2 (stating that "[a]pplicant has not pointed out how his invention differs from the prior art . . . in an unobvious manner. . . . The conduit of the prior art is . . . 'substantially defined' by the opened mold parting surfaces"). Therefore, Defendants argue that "classic prosecution history estoppel as defined by the Supreme Court bars the '998 patent from encompassing injection molds having 'guide conduits' that are not completely defined by the mold's parting surfaces and cavity surfaces." Crest's Motion at 10.

Though the merits of Defendants' *Festo* and *Warner-Jenkinson* argument is somewhat dampened by the Supreme Court's recent decision in *Festo*, the Court agrees that Turn-Key is prevented from claiming infringement against a "guide conduit" that is not completely defined by parting and cavity surfaces. After granting certiorari in *Festo*, the Supreme Court disagreed with the Federal Circuit's holding that estoppel necessarily completely bars an inventor from asserting infringement against any equivalents to the narrowed element. Rather, a determination of the reach of the doctrine of estoppel requires an examination of the subject matter surrendered by the narrowing amendment. *Festo*, 2002 WL 1050479 * 11. In the *Markman* Order, the Court

noted that the prosecution history in the instant case shows that Claim 1(d) was amended from "contours of said conduit, substantially being defined by regions of the parting surface and the internally positioned cavity/ies, which are exposed subsequent to separation" to "a substantially enclosed guide conduit having contours defined by the regions of the parting surface and the internally positioned cavity/ies that are exposed subsequent to separation and leading in a direction substantially perpendicular to said predetermined direction." *Markman* Order at 18. The Court rejected Turn-Key's argument that the amendment broadened, rather than narrowed, the claim language with respect to the contours of the guide conduit and instead found that though the claim language had previously required that the contours of the conduit be mostly determined by the regions of the parting and cavity surfaces, the final language requires that the contours be determined by those regions. *Id.* at 19. Because the purpose of applying estoppel is to hold the inventor to representations made during the application process and to the inferences that may reasonably be drawn from the amendment, the Court finds that Sorensen is deemed to have conceded that the patent does not extend as far as the original claim—in other words, he cannot now claim infringement against an invention that includes contours not defined by parting and cavity surfaces. This is especially so, given that a patentee bears the burden of showing that an amendment does not surrender the particular equivalent in question. *Festo*, 2002 WL 1050479 * 12.

In their briefs, Defendants also pointed out that the scope of equivalency here is limited by statements in the specification of the '998 patent where Sorenson noted the

deficiencies and disadvantages of the prior art. In *Dawn Equipment*, 140 F.3d at 1009, the Federal Circuit emphasized that the Background of the Invention section of the '282 patent at issue described the problems with prior art "multi-holed pinned height adjustment" mechanisms. *Id.* at 1016-17. In so doing, the court stated that

> The patent teaches that such mechanisms are time-consuming to adjust and are prone to misadjustment by inserting the pin in the wrong holes, and furthermore the loose pins in such mechanisms are easily lost. [citation omitted]. Kentucky Farms' multiple-hole, pinned height-adjustment mechanism is such a mechanism and shares these same problems. In contrast, the '282 patent teaches that the mechanism provided by the patented invention is directed at solving these problems. [citation omitted]. These statements in the patent alone strongly suggest, if not mandate, judgment in Kentucky Farms' favor. [citation omitted].

Id. Defendants argue that the '998 patent includes similar, if not stronger, criticisms of prior art features—including the use of mobile guide rails such as those used in the CD-94 mold. In particular, they point to the following passages:

> Heretofore controlled ejection of injection molded plastic products have employed **complicated mobile guide rails** or guide pins, which wear down and reduce production stability. Other methods have employed stationary elements such

> as pins or blades **which may be received in recesses of the confronting mold part in the closure position.** But such pins or blades are quite vulnerable, particularly in case a molded product gets caught between the mold part during the closing action. Also the recesses are quite difficult to clean in case the injected plastic material by accident flashes and finds its way into the recesses.
>
> * * *
>
> Among the objects of the invention are to facilitate controlled ejection of the injection molded product in relation to its orientation, speed of injection, and/or sterility basically **without the need of auxiliary moving parts or vulnerable elements such as pins or blades.**

Crest's Motion at 12 (emphases in brief); *see* '998 patent at Col. 1 11. 12-23; *id.* at Co. 1 11. 27-30. Defendants conclude that the aforementioned statements disclaim exactly what the CD-94 mold does:

> [I]t uses guide rails that are recessed in the stationary mold part when the mold is in the closure position. Moreover, not only does the CD-94 mold use these criticized devices, it ***requires*** them to guide molded discs out of the mold.

Crest's Motion at 12-13. Thus, "[l]ike the patentees in *Dawn Equipment* . . . Turn-Key cannot reclaim through the doctrine of equivalents what it has so clearly criticized." *Id.*

Appendix C

In its opposition brief, Turn-Key concedes that *Festo* and the principle of prosecution history estoppel would apply if it were arguing that Defendants' CD-94 mold included other contours not defined by parting surface and cavity surface. Turn-Key's Opposition at 25 ("Prosecution history estoppel and the *Festo* decision would only apply if Turn-Key was arguing that Defendants' conduit included other contours not defined by parting surface and cavity surface."). In light of the clear precedents of *Festo*, *Warner- Jenkinson*, and *Dawn Equipment*, the Court finds that Turn-Key really cannot do anything but make such a concession. Turn-Key nevertheless argues that it is not barred, as a matter of law, from showing equivalents because "it would not be arguing that other contours not defined by parting surface and cavity surface constitute the required 'guide conduit.'" Turn-Key's opposition at 25. Instead Turn-Key states that it "would show that by using additional structures or auxiliary parts within the conduit having contours defined only by parting surfaces and cavity surfaces, Defendants perform the equivalent step of creating a guide conduit, and the '998 prosecution history does not preclude such an analysis as a matter of law." *Id.* However, the Court agrees with Defendants that "[a]t this stage . . . Turn-Key needs to do better than simply allege that it 'would' show. In order to avoid summary judgment, Turn-Key cannot merely rely on allegations, it must produce evidence." Crest's Reply at 20. Turn-Key merely reiterates its argument that the usage of additional structures to "guide" and "direct" the movement of the molded product within the conduit satisfies Claim 1(d) of the '998 patent even if the contours of the conduit themselves never actually perform these functions. The Court once again rejects this position on the grounds that it is too broad of a reading of the '998 patent and this Court's *Markman* order.

In short, Turn-Key's mere conclusory statements of what it would show cannot defeat Defendants' motion for summary judgment regarding the doctrine of equivalents.[3]

IV. CONCLUSION

Based on the foregoing, the Court GRANTS Defendants' motions for summary judgment.

IT IS SO ORDERED.

Dated: June 4, 2002

s/ Lourdes G. Baird
LOURDES G. BAIRD
United States District Judge

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3. Because the Court finds *Festo*, *Warner-Jenkinson*, and *Dawn Equipment* to be sufficient for purposes of barring Turn-Key from using the doctrine of equivalents, the Court need not address Defendants' argument that the recent Federal Circuit case of *Johnson & Johnson Assocs. Inc. v. R.E. Service, Co.*, No. 99-1076, 2002 WL 466547 (Fed. Cir. March 28, 2002) (en banc) (per curiam) also precludes Turn-Key from "recapturing" auxiliary parts such as the guide rails and the kicker plate through the doctrine of equivalents. Crest's Reply Brief at 18-19; KM's Reply Brief at 19-20. In addition, the Court also declines to address Crest's argument that the CD-94 mold does not meet the "insubstantial differences" standard for infringement under the doctrine of equivalents even in the absence of estoppels and disclaimers, Crest's Motion at 13-14, and KM's additional argument that Turn-Key is also barred from using the doctrine of equivalents under the "all elements rule." KM's Motion at 20.

APPENDIX D — ORDER CONSTRUING CLAIMS OF U.S. PATENT 4,422,998 OF THE UNITED STATES DISTRICT COURT FOR THE CENTRAL DISTRICT OF CALIFORNIA DATED JANUARY 8, 2002 AND FILED JANUARY 18, 2002

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CV 01-4158 LGB (MCx)

IN RE: TURN-KEY-TECH MATTERS AND
ALL CONSOLIDATED ACTIONS,

This Document Relates to: All Actions

ORDER CONSTRUING CLAIMS OF U.S. PATENT 4,422,998 (" 'THE 998 PATENT")

I. INTRODUCTION

In these consolidated cases, Turn-Key-Tech ("Turn-Key") accuses National Film Laboratories, Inc. d.b.a. Crest National Optical Media ("Crest"), Concord Disc Manufacturing Corporation ("Concord"), Music City Optical Media Inc., ("MC"), and Hollywood Records of patent infringement. Specifically, it alleges that these Defendants have been practicing a process claimed in U.S. Patent 4,422,998 ("'the 998 patent") which was issued to Jens Ole Sorensen on December 27, 1983.[1] Turn-Key brings the instant actions as the exclusive licensee of

1. Turn-Key also accuses Defendants of contributory infringement and have also named certain Doe Defendants in their (Cont'd)

actions as the exclusive licensee of the '998 patent which expires on April 22, 2002. This matter is before the Court for purposes of the interpretation of disputed claims of the '998 patent.

II. THE '998 PATENT

For purposes of the Court's claim instruction endeavor here, it suffices to note that Turn-Key accuses Defendants of violating the '998 patent. The '998 patent entitled "Controlled Ejection Method for Injection Molding" was issued to Sorensen on December 27, 1983 and relates to the field of injection molding plastics. Injection molding is a manufacturing process used to make plastic products by injecting fluid plastic into a mold cavity and allowing the plastic to solidify into the general shape of the mold cavity to produce the plastic part. Once the product is removed from the mold, the process continuously repeats.

(Cont'd)
complaints. Defendants, in turn, have filed counter-claims for declaratory judgment of non-infringement and invalidity and unenforceability of the '998 patent. Krauss-Maffei Corporation ("KM") has also brought an action against Turn-Key for declaratory judgment of non-infringement, invalidity and unenforceability of the '998 patent, common law tortious interference with existing business relationships, common law trade disparagement and injurious falsehood, and unfair competition. These claims stem from KM's licensing of certain patents relating to an optical disc manufacturing process and its sale of manufacturing systems utilizing the licensed technology because Turn-Key has alleged that the manufacture of optical discs using KM's equipment infringes the '998 patent. Turn-Key answered KM's complaint and a brought counterclaims for contributory infringement and active inducement of infringement vis-a-vis KM.

Sorensen stated that the method protected by the '998 patent constituted an improvement from prior art in terms of the orientation, speed of injection, and the sterility involved. '998 patent at Col. 1. ll. 27-30. The method, moreover, could be performed basically without the need of auxiliary moving parts or vulnerable stationary elements such as pins and blades. *Id.* at ll. 30-34. Claims 1, 2, 5, and 6 of the '998 patent are specifically at issue. Claim 1 is the only independent claim in the '998 patent.

III. CLAIM INTERPRETATION LAW

In *Markman v. Westview Instruments Inc.*, 517 U.S. 370 (1996), the Supreme Court held that the interpretation of a patent claim—the portion of the patent document that defines the scope of the patentee's rights—is a matter of law exclusively within the scope of the court and is not a factual question for the jury. *Id.* at 372. The *Markman* decision suggested that a trial court could consider various types of evidence when interpreting a patent, including expert testimony. *See id.* at 388-90. Shortly after the Supreme Court handed down *Markman*, the Federal Circuit, in *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576 (Fed. Cir. 1996), expanded on the Court's dicta concerning evidence available to a trial court in interpreting patent claims. *See id.* at 1581-83. The Federal Circuit held that if intrinsic evidence can, by itself, resolve ambiguity in a patent term, then a court may not rely on extrinsic evidence, such as expert testimony, to construe the term. *See id.* at 1583. A trial court may only use extrinsic evidence when intrinsic evidence fails to illuminate the meaning of the disputed claim. *Id.* Moreover,

extrinsic evidence cannot broaden the reach of a claim or contradict explicit language. *Id.* The policy rationale supporting this evidentiary limitation is that prospective patentees must have access to public records concerning the patent to "design around" a prior art. *Id.* If expert testimony or other extrinsic evidence were permitted to alter the record, then this public benefit would be frustrated. *Id.* Thus, a court can only examine extrinsic evidence if the evidence does not contradict the claim language, the specification, or the prosecution history but instead supplements it. *Id.* at 1584-85.

The Federal Circuit detailed a hierarchy of specific types of evidence that a court may consider. Thus, when interpreting a patent, a trial court must first look at the language of the claim itself. *See id.* at 1582. Courts should typically construe terms by their common, customary meaning, but a patentee is allowed to define her own terms in the specification section of the patent. *See id.* Therefore, courts must always review the specification, which, when setting forth an embodiment of the invention, frequently provides explicit definitions of the claim terms. *See id.* The language in the specification is dispositive, and "it is the single best guide to the meaning of the disputed term." *Id.* However, a patent's claims are not limited to the specification's best mode, preferred embodiment, specific objects, or illustrative examples, and it is erroneous to read limitations from the specification into the claims. *See Laitram Corp. v. Cambridge Wire Cloth Co.*, 863 F.2d 855, 865 (Fed. Cir. 1988) ("References to a preferred embodiment, such as those often present in a specification, are not claim limitations."); *Rolls-Royce Ltd. v. GTE Valeron Corp.*, 800 F.2d 1101, 1108 (Fed. Cir. 1987) ("Reference to an object does not constitute in itself a limitation in the claims."). In addition, a court may consider the prosecution

history of the patent as evidence of meaning. *Id.* This history contains the complete record of all the filings and examinations before the Patent and Trademark Office, including representations made by the applicant regarding the significance of claims and terms. *Id.* The history also limits the interpretation of terms by recording the exclusion of any term definition disclaimed during the prosecution. *Id.*

IV. CLAIM INTERPRETATION AND ANALYSIS

The parties have agreed to construe the language contained in the preamble of Claim 1, "[a] method of cyclic injection molding of plastic," as requiring "a repeating cycle involving the introduction of plastic under pressure into a mold to form plastic objects." Corrected Joint Claim Construction Statement ("Joint Statement") at 2. In addition, they also have agreed to construe language contained in Claim 3, "[a] method according to claim 1, wherein step (a) comprises the step of: (g) Combining the two mold parts in a horizontal direction," as requiring that "one or both of the two mold parts moves towards the other in a direction parallel to the plane of the earth's surface pursuant to the parties' respective constructions of step (a) of Claim 1." *Id.* at 2-3. The remaining language of Claims 1, 2, 5, and 6 in the '998 patent is disputed.

Appendix D

A. *Claim 1 of '998 Patent*

1. The Preamble

The preamble of Claim 1 of the '998 patent states that the invention comprises "[a] method of cyclic injection molding of plastic where the mold comprises two parts which are separated by a parting surface and at least one cavity situated internally to the boundaries of the parting surface, and wherein each production cycle comprises the steps of. . . ." The parties disagree on the interpretation of the following three terms/phrases contained in the preamble:

a. "Two mold parts"

Turn-Key argues that this limitation must be construed to require that the two mold parts are a first mold part and a second mold part including all of their respective components. It asserts that these components can include mold plates, cavity inserts, alignment components, screws, heating and cooling assemblies, ejector assemblies, pins, blades, guide assemblies, etc. Pl's Opening Brief at 5. Conversely, Defendants argue that the two mold parts referred to are "not just any parts, but the two mating halves of an injection mold" and that though the mold "may have other components . . . these should not be confused with the two mold halves to which this claim term is intended to refer." Crest's Responsive Brief at 11. The parties thus appear to agree that the phrase "mold comprises two parts" signifies the mating halves of a mold and that the mold parts themselves may contain individual components. Crest's Responsive Brief at 11; Pl's Opening Brief at 5. The dispute

is whether the phrase refers to the mold halves as wholes or whether it includes specific auxiliary parts.

The Court agrees with Defendants that though the mold halves can possess component parts, the "mold comprises two parts" language should be interpreted as "referring to the two mating halves of the mold as wholes, and not to their individual components." Crest's Responsive Brief at 11. This interpretation comports with the ordinary and customary meaning of the phrase which solely refers to "two parts" and the specification does not show that Sorenson, as patentee, intended to define the phrase in his own terms rather than by the terms' common, customary meaning. *See Vitronics*, 90 F.3d at 1584-85.

b. "Parting surface"

Turn-Key argues that this limitation must be construed as referring to the surfaces of the two mold parts between the two mold parts that either touch or lie adjacent to the other mold part before the mold parts separate, excluding the product molding cavity(ies) that is situated internally to the parting surfaces. In so arguing, Turn-Key specifically objects to the "additional limitations" of Defendants' interpretation. Pl's Opening Brief at 7-8. Defendants argue that a parting surface consists of those faces of each of the two mold parts that touch each other when the mold is closed and that oppose each other when the mold is open. They, however, note that portions of these faces may be slightly relieved so that they do not touch each other when the mold is closed but face each other in close proximity and with no intervening structure. Crest's Responsive Brief at 11-13; KM, MC & Concord's Brief at 5. The dispute over the interpretation of "parting surface" thus centers around (1)

whether the faces of the mold parts must touch each other, (2) whether the faces must oppose each other when the mold is "open," and whether (3) there can be no intervening structure.[2]

The Court construes "parting surface" to signify the faces of the two mold parts that either touch or lie adjacent when the mold parts are brought together in the "combining" process described in Element (a). *See* supra at Section IV.A.2. In applying the ordinary and customary meaning of "combining" as the act of bringing into or joining in a close union or whole, the Court finds that not all of the faces of the two mold parts are required to actually touch each other; they need to be only in some proximity to each other. Random House Webster's College Dictionary at 261. Having said that, however, the Court notes that there must be at least some point at which the faces of the two mold parts touch other, thus preventing the fluid from leaking out of the cavity before it is molded into the plastic product. The Court declines to construe the mold parts as "opposing" each other when they are being kept apart in the "separating" process described in the first portion of Element (d) on the grounds that it adds an extra limitation not present in the claim language. *See* supra Section IV.A.5.a.[3] In addition, the Court further declines to construe this claim as requiring an absence of an intervening structure on the grounds that it adds an extra limitation not present in the claim language.

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2. Here, Defendants utilize the term "open" to refer to the position of the mold parts during the "separating" process described in Element (b). *See* IV.A.3.

3. The Court agrees with Turn-Key that with a "clam" model mold, the parting surfaces would not "oppose" each other like paired opposites upon opening their book-like hinges. Pl's Reply Brief at 19.

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c. "Cavity"

Turn-Key argues that the limitation "cavity situated internally to the boundaries of the parting surface" must be construed as referring to "at least one product molding cavity that is surrounded by the parting surface." Pl's Opening Brief at 8. Defendants, conversely, assert that the "cavity" is a space that is surrounded by a parting surface in all directions (i.e., all directions in the plane of that parting surface). In so arguing, they specifically object to Turn-Key's inclusion of the cavity walls of the mold which form the cavity into the definition of "cavity." KM, MC & Concord's Brief at 5; Pl's Opening Brief at 8. Turn-Key, by contrast, objects to Defendants' description of the cavity as being surrounded in the "plane of that parting surface on the grounds that this wording leads to the "erroneous conclusion that the parting surface is only in one plane." Pl's Opening Brief at 8. The Court finds that Defendants' briefs do not make any argument about the cavity being surrounded in the "plane of that parting surface" and as such, considers this interpretation to be waived. Consequently, the only dispute concerns whether the cavity walls should be included in the definition of the term "cavity."

The Court construes "cavity" according to its ordinary and customary meaning, thus signifying a hollow space, Random House Webster's College Dictionary at 209, and specifically construes "cavity" within the context of the '998 patent as a hollow space that is surrounded by a parting surface. In keeping with this interpretation, the Court declines to construe the "cavity" to include the cavity walls which actually form the hollow space. Nothing in the specification

suggests that Sorenson, as patentee, intended to define "cavity" in his own terms rather than by its ordinary, customary meaning.

2. Element (a)

Element (a) states that the invention requires "[c]ombining the two mold parts by moving, in a predetermined direction, the mold parts in relation to each other." Turn-Key argues that this limitation must be construed to require "combining the two mold parts by moving one or both of the mold parts in a direction toward the other." Pl's Opening Brief at 8-9. In so arguing, Turn-Key states that "combining" has no special or uncommon meaning and should not be substituted with language that may change the meaning and scope of Claim 1. *Id.* Defendants argue that the limitation should be construed as "[c]losing the mold by moving the two mold parts" and that "[i]n closing the mold, one or more of the two mold parts is moved towards the other mold part along a straight path running between the two parts." Joint Statement at 25. The dispute over this portion of the claim language thus centers around whether "[c]losing" should be substituted for "[c]ombining" and whether the movement of the mold parts must be along a straight path.

The Court finds "combining," as previously mentioned, to be utilized in its ordinary and customary sense here, thus signifying the act of bringing into or joining in a close union or whole, and that it would therefore be inappropriate to substitute other terms to further define it. In particular, the Court declines to substitute "closing" because it represents

an extra limitation that is not present in the claim's language.[4] The Court also declines to adopt the construction that the mold parts must move along a straight path on the grounds that it adds an extra limitation not present in the patent's language. For instance, in a "clam" model mold, the two mold parts would not move in a straight path but rather in an almost half-circular motion. Thus, the Court finds that Element (a) only requires that the movement ~~of the~~ mold parts towards each other occur in a predetermined direction, as stated by the claim language.

3. Element (b)

Element (b) states that the invention requires "Injecting plastic in a fluid state into a cavity situated within the parting surface." Turn-Key's construction follows the plain language of the claim on the grounds that no rewording is necessary to interpret the language since the inventor's choice of words is clear. Pl's Opening Brief at 9. Defendants argue that this limitation should be construed as requiring that "[p]lastic that is sufficiently liquid to flow is forcefully introduced into the mold cavity." Joint Statement at 26.

The dictionary defines "fluid" to be a "substance, as a liquid or gas, that is capable of flowing and that changes its shape at a steady rate when acted upon by a force." Random House Webster's College Dictionary 500. Applying this

4. The Court has already noted that not all of the faces of the mold parts (i.e. parting surfaces) have to touch each other during the "combining" process but only that they touch at *some* point to ensure that no liquid plastic leaks out before the plastic is converted into a molded product. "Closing," on the other hand, signifies the act of stopping or obstructing *all* gaps. Random House Webster's College Dictionary at 247.

definition to the limitation "plastic in a fluid state," the Court reads the limitation to mean plastic "that is capable of flowing." In addition, the Court finds that the parties' agreement to construe the limitation, " [a] method of cyclic injection molding of plastic," contained in the preamble of Claim 1 as "a repeating cycle involving the introduction of plastic under pressure into a mold to form plastic objects," Joint Statement at 2, binds them to a construction of "injecting" in the Element (b) limitation as the process of "forcefully introducing." Defendants and Turn-Key have agreed to define "injection" as "the introduction of plastic under pressure" and the Court finds that the essence of "under pressure" is equally expressed by the ordinary and customary meaning of the term "forcefully."

4. Element (c)

Element (c) states that the invention requires "Solidifying the injected plastic in the cavity, thereby creating a plastic product." Turn-Key's construction follows the plain language of the claim on the grounds that there are no additional words of special or uncommon meaning that need to be additionally defined. Joint Statement at 7; Pl's Opening Brief at 9. Defendants argue that the limitation should be construed as requiring that "The liquid plastic hardens in the mold cavity to create a hardened plastic product. The cavity imparts a predetermined shape to the liquid plastic and thus to the molded plastic product." Joint Statement at 27. Turn-Key objects to Defendants' usage of the term "harden" on the grounds that it "unnecessarily limits the claim because the hardness of the product is a function of the polymer used and certain materials (e.g. rubbery plastic) remain quite soft after they solidify." Pl's Opening Brief at 9.

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The dictionary defines "solidify" as: 1. To make solid; make into a hard or compact mass; change from a liquid or gaseous to a solid form. 2. To unite firmly or consolidate. 3. To form into crystals; to make crystallized. 4. To become solid. 5. To form into crystals; become crystallized. Random House Webster's College Dictionary at 1229. In light of the previous limitation that the plastic, as first injected, is in a state where it is capable of flowing, the Court finds that the ordinary and customary meaning of "solidify" within the context of the '998 patent is to "change from a liquid or gaseous to a solid form." The Court construes the ordinary and customary meaning of "solid," in turn, as having relative firmness, coherence of particles, or persistence of form. Random House Webster's College Dictionary at 1229. In doing so the Court agrees that "harden" adds a limitation not present in the claim language.

5. Element (d)

a. The first portion

The first portion of Element (d) requires "[s]eparating the two mold parts by moving, in a direction opposite to the predetermined direction, said mold parts in relation to each other to create a substantially enclosed guide conduit." Joint Statement at 7.

Appendix D

i. "Separating the two mold parts by moving, in a direction opposite to the predetermined direction, said mold parts in relation to each other"

Turn-Key argues that this portion must be construed as "Separating the two mold parts by moving one or both of the mold parts away from the other, in the opposite direction to the combining direction." Joint Statement at 8. Defendants argue that this limitation must be construed as "[o]pening the mold by moving one or both of the two mold parts away from the other along the same path along which one or both of the mold parts were moved in closing the mold." Joint Statement at 28.

The Court finds "separating" to be utilized in its ordinary and customary sense here, thus signifying the act of keeping apart or dividing, Random House Webster's College Dictionary at 1179, and that it would be inappropriate to substitute other terms to further define it. In particular, the Court declines to substitute "opening" because it represents an added limitation not present in the claim language. The Court further declines to adopt the construction of "along the same path along which one or both of the mold parts were moved in closing the mold" on the grounds that, it does not convey the ordinary and customary meaning of "in a direction opposite to the predetermined direction" and that it adds an extra limitation which does not appear in the claim language itself. *See* supra Section IV.A.2.

ii. "[T]o create a substantially enclosed guide conduit"

Turn-Key argues that this part of Element (d) must be construed to require that the process described above "form[s] a substantially enclosed guide conduit by the configuration or shaping of the mold parts." Joint Statement at 8. Defendants argue that this portion of Element (d) requires that "the motion of the two mold parts brings into existence a substantially enclosed guide conduit, which does not exist when the mold is closed." Joint Statement at 29; Crest's Responsive Brief at 11; KM, MC, & Concord's Brief at 6. The Court construes this portion of the claim language to signify that the result of the process of bringing apart the molds in the fashion described in the previously discussed claim language is a substantially enclosed conduit. The separation of the mold parts thus results in something—the conduit-that was not there when the mold parts were in the process of being brought together.

Turn-Key argues that the phrase "substantially enclosed guide conduit" must be construed as "a passageway through which the molded product is guided and transported that is formed within and substantially enclosed by the surfaces of the two mold parts." Joint Statement at 9. Defendants argue that this phrase must be construed as "a duct or channel for conveying material" and that the insertion of the term "guide" means that the conduit "directs the motion of material that passes through it, including molded plastic products as set forth below, thus determining, at least in part, the path of such material." Joint Statement at 29.

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The Court construes "conduit" in its ordinary and customary sense, thus signifying a tube or channel for carrying or taking materials from one place to another. Random House Webster's College Dictionary at 275. In addition, the Court construes "guide" in its ordinary meaning, thus signifying something that helps to direct an object's travel or its progressive motion. *Id.* at 577. The Court consequently construes the "guide conduit" to be a tube or channel that carries materials from one place to another and that helps to direct the materials' progressive motion. The Court rejects Turn-Key's argument that the construction of the "guide conduit" as helping to direct the travel of the molded plastic product here in Claim 1 renders Claim 2 which specifically requires the orientation of the molded plastic product to be directed by the contours of the "guide conduit" superfluous. Claim 1 is an independent claim which merely introduces the guide conduit and Claim 2, a dependent claim, describes the guide conduit's role in one of the steps of the patented process. It is inconsistent for Turn-Key to concede that the guide conduit plays a role in directing the molded plastic product's orientation on the one hand and then to reject a definition of the conduit taking that role into consideration on the other hand.[5]

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5. During oral argument, counsel for Crest requested that the Court construe "guide conduit" to be a tube or channel that carries materials from one place to another and that *solely* helps to direct the materials' progressive motion. The Court, however, rejects this position because it is ultimately based upon Defendants' mistaken belief that the '998 patent cannot be used with the auxiliary parts that Sorensen criticized in the abstract and Objects of the Invention sections of his patent. This position misreads Sorensen's criticism of

(Cont'd)

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Turn-Key argues that "substantially enclosed" must be construed to mean that the conduit is "almost entirely enclosed or non-open from the outside environment along its length." Joint Statement at 10; P1's Opening Brief at 11-12. Defendants argue that "substantially enclosed" must be construed to mean that the conduit has "no significant openings except for an inlet and outlet." Joint Statement at 29; Crest's Responsive Brief at 10; KM, MC, & Concord's Brief at 6-7. The Court construes the phrase "substantially enclosed" according to its ordinary and customary meaning, thus signifying a conduit that is almost entirely closed in from the outside environment. The Court declines to construe the phrase as requiring an inlet and an outlet on the grounds that it adds an extra limitation present in neither the claim language nor in the essence of the term "conduit." *See* Random House Webster's College Dictionary at 275.

(Cont'd)

the parts and has already been rejected by the Court. *See supra* Section IV.A.1.a; *see also Rolls-Royce*, 800 F.2d at 1108 ("Reference to an object does not constitute in itself a limitation in the claims."). The case cited by Crest's counsel during oral argument, *O.I. Corp. v. Tekmar Co. Inc.*, 115 F.3d 1576 (Fed. Cir. 1997), does not sway the Court to the contrary because there, the Federal Circuit found that the written description in the patent "expressly distinguishes over prior art passages by stating that those passages are generally smooth-walled." *Id.* at 1581. Here in contrast, the abstract and objects section of the '998 patent does not expressly distinguish Sorensen's invention over prior art by stating that auxiliary moving parts cannot be used but only that they need not be used. Though Crest's counsel argues that all three preferred embodiments in the specification show the guide conduit as being the sole mechanism that directs the movement of the molded product, the Court once again notes that it is the claim which measures the invention, not the specification. *See SRI*, 775 F.2d at 1121.

Though it is true that the drawings of the preferred embodiments depict two openings, it is the claim which measures the invention, not the specification. *See SRI International v. Matsushita Electric Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985). Thus, the Court focuses on the claim's language. The Court agrees with Turn-Key that a conduit, in its ordinary sense, need not possess two major openings.[6] Taking into account the specification, the Court notes that Defendants' contention that the inlet is necessary to allow for the introduction of air to transport the product, KM, MC, & Concord's Brief at 6, is belied by the first and second preferred embodiments which do not use a stream of air.

b. The second portion of Element (d)

The second portion of Element (d) of the invention requires a substantially enclosed guide conduit "having contours defined by the regions of the parting surface and the internally positional cavity/ies that are exposed subsequent to separation." Turn-Key argues that this portion of Element (d) requires that the conduit, "at minimum, has contours substantially defined by regions of the parting surface and internally positioned cavity/ies that are exposed to the void within the mold after the mold parts separate." Joint Statement at 11; Pl's opening Brief at 12-14. Defendants argue that this portion of Element (d) must be construed as requiring all internal surfaces of the guide conduit to be

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6. For example, a thermometer is described as a sealed glass tube which contains a column of liquid, as mercury, that expands and contracts with temperature changes. *See* Random House Webster's College Dictionary at 1336. On a basic level, a thermometer is thus a "conduit" which carries liquid from one place to another.

formed only by areas of the parting surfaces and of the mold cavity. Crest's Responsive Brief at 13-14; KM, MC & Concord's Brief at 7-9.

The Court construes "contours" according to its ordinary and customary meaning, thus signifying the outline of a figure or body, Random House Webster's College Dictionary at 287, and "define" according to its ordinary and customary meaning, thus signifying to determine or fix the boundaries or extent of. Random House Webster's College Dictionary at 346. In applying these meanings, the Court thus construes this portion of Element (d) to require that the outlines of the body of the conduit be determined or fixed by the regions of the parting surface and cavity surfaces; in other words, the contours are formed only by these regions. The prosecution history supports this plain language reading of the claim as it records the exclusion of the term "substantially" which was disclaimed by Turn-Key during the prosecution. *See Rolls-Royce*, 800 F.2d at 1108; Exhibit B to Decl. of Gaffin at 29, 55, 63 (showing that the claim language of the "contours of said conduit, substantially being defined by regions of the parting surface and the internally positioned cavity/ies, which are exposed subsequent to separation" was amended to "a substantially enclosed guide conduit having contours defined by the regions of the parting surface and the internally positioned cavity/ies that are exposed subsequent to separation and leading in a direction substantially perpendicular to said predetermined direction").

Specifically, the history shows that the Examiner rejected Sorensen's patent application, in part, because "[t]he invention, as does the prior art utilized an air ejection of

molded plastic articles from mold cavities upon opening of the mold parts. The conduit of the prior art is thus 'substantially defined' by the opened mold parting surfaces." Exhibit B7 to Decl. of O'Brien at 110. In a June 2, 1983 Examiner Interview Summary Record, the Examiner writes that Sorensen's counsel, Edward Callan

> pointed out that separate mold part define the guide conduit in which artic[le] [is] transported. Examiner suggested that amendment of claim to positively recite formation of such guide conduit by configuration (shaping) of such mold parts defines and is allowable over art of record.

Exhibit B8 to Decl. of O'Brien at 112. The final language of Element (d) reflects this suggested change. The Court finds that this history defeats Turn-Key's position that the amendment broadened, rather than narrowed, the claim language with respect to the description of the contours of the guide conduit. Pl's Reply at 10-11.[7] For though the claim

7. Turn-Key's position is based upon its argument that "having" is an "open" claim term designating "that the named elements are essential, but [that] other elements maybe added and still form a construct within the scope of the claim." Pl's Reply at 11. "The term 'having' does not mean 'including only"' but means "including at least." *Id.* Turn-Key thus argues that the sentence, "a car **having** front doors," does not mean that a car can only have front doors. Pl's Opening Brief at 12 (emphasis in original). Rather, "[t]he car can have other doors and still be covered by the claim. The car with front doors would not avoid infringement if it also had wheels, back doors, and a hatchback, for example. The front doors would be an essential element of the claim, but would not exclude any other

(Cont'd)

language had previously required that the contours of the conduit be mostly determined by the regions of the parting and cavity surfaces ("substantially being defined by"), the final language requires that the contours be determined by those regions ("having contours defined by").

The parties also dispute the interpretation of "exposed subsequent to separation"—Turn-Key, on the one hand, argues that this language should be interpreted to refer to the regions of the parting surface and internally positioned cavity/ies that are exposed to the void within the mold after the mold parts separate. Pl's Opening Brief at 14; P1's Reply Brief at 12-13. Defendants, on the other hand, argue that "exposed subsequent to separation" refers to the areas of the parting surface and of the surfaces of the mold cavity that are exposed to the molded plastic part after the mold is opened. Crest's Responsive Brief at 14; KM, MC, & Concord's Brief at 7 n.7. Turn-Key and Defendants both point to the specification to support their respective interpretations —Turn-Key argues that Figures 3, 5, 7, 9, and 11 show that "only surfaces that are exposed to the void within the mold are designated as contours of the guide conduit," Pl's Opening Brief at 14, and Defendants argue that Figures 3 and 5 "show that all of the indicated contours are exposed

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(Cont'd)
elements." *Id.* Though Turn-Key's observations about the car example may be valid, the Court finds that the analogy is inapplicable to the case at hand because the phrase at issue here is "having contours defined by." Turn-Key's car example, in contrast, only involves the term "having" and as such, analogizing the car example to the present case necessarily reads the term "defined" out of existence of Element (d) of Claim 1.

to the molded product part (petri dish 6), i.e. not separated from the dish by any intervening structure. The same can be seen in [Figure] 9." Crest's Responsive Brief at 14.

The Court, however, is persuaded by neither of these proposed interpretations because both Plaintiff and Defendants, at bottom, are attempting to read what they perceive to be limitations contained in the preferred embodiments into the claim language. *See SRI International*, 775 F.2d at 1121; *see also Laitram Corp.*, 863 F.2d at 865 ("References to a preferred embodiment, such as those often present in a specification, are not claim limitations."). In addition, the Court agrees with Defendants that Turn-Key's interpretation is circular because the "void within the mold" is none other than the guide conduit itself, and the "exposed" contours are themselves the defining features of the guide conduit. Thus, Turn-Key's construction "define[s] the contours of the guide conduit in terms of the conduit itself." Crest's Responsive Brief at 14. The Court, however, also rejects Defendants' construction because it is premised on the proposition that there can be no intervening structures between the contours of the guide conduit and the product. *Id.* This position has already been rejected by the Court. *See supra* III.A.1.b.

The Court looks at the language of the claim itself, as it must, to interpret the phrase "exposed subsequent to separation." *Vitronics*, 90 F.3d at 1578. The dictionary defines "expose," in part, as "to uncover, bare," "to present to view, exhibit," or to "make known [or] reveal." Random House

Webster's College Dictionary at 460. The Court, in applying the ordinary and customary meanings of the word "expose," construes the phrase to refer to the regions of the parting surfaces and the cavity surfaces that are revealed or uncovered after the "separating" process described above, *see* supra Section IV.A.5.a.i, so that they can be viewed by the eye. Nothing in the specification suggests that Sorenson, as patentee, intended to define the phrase in his own terms rather than by the phrase's common, customary meaning. *Vitronics*, 90 F.3d at 1584-85.

c. The third portion of Element (d)

The third portion of Element (d) of the invention requires that the substantially enclosed guide conduit be "leading in a direction substantially perpendicular to said predetermined direction." Turn-Key argues that this language must be construed to require that the conduit lead in a direction substantially perpendicular to the direction that one or both of the mold parts move toward the other. Joint Statement at 12; Pl's Opening Brief 14. Turn-Key argues that its construction follows the plain language and that no rewording is necessary to interpret the claim. Defendants, on the other hand, argue that "leading in a direction" means "determining a single path that is used for movement of molded plastic products" and that "said predetermined direction" means "the straight path running between the two mold parts, along which they were moved in closing the mold and in opening the mold." Joint Statement at 16. Thus, Defendants conclude that "the guide conduit determines a single path for movement of molded plastic products, which is in a plane substantially perpendicular to the path of mold opening and closing." *Id.*

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In line with the Court's construction of Element (a) and the first portion of Element (d), the Court rejects Defendants' attempts to construe "direction" and "predetermined direction" in such a restrictive manner as to signify a "straight path." *See supra* at Section IV.A.2 and IV. A.5 (a)(i). Rather, the Court construes the third portion of Element (d) to require that the substantially enclosed guide conduit lead in a direction almost entirely perpendicular to the predetermined direction that one or both of the mold parts were moving toward the other during the process when they were being brought together. In so construing, the Court finds "perpendicular" to be utilized in its everyday, ordinary sense and concludes that as such, it need not be further defined.

6. Element (e)

Element (e) of Claim 1 requires "Ejecting the plastic product into said guide conduit." Joint Statement at 12. Turn-Key argues that this element must be construed to require "Removing the plastic product from one of the mold parts" into the substantially enclosed conduit. *Id.*; P1's Opening Brief at 14-15. Defendants conversely argue that the phrase means "forcefully discharging each molded plastic product from a surface of the mold cavity so that it enters the guide conduit and so that it is free to move within the guide conduit and is not held away from the walls of the guide conduit by any intervening structure." Joint Statement at 38; Crest's Responsive Brief at 15-16; KM, MC, & Concord's Brief at 10.

The dictionary defines "eject" as: 1. To drive or force out; expel. 2. To dismiss, as from office. 3. To evict. 4. To

throw out or throw off. 5. To propel oneself from a disabled airplane, especially by an ejection seat. Random House Webster's College Dictionary at 419. In applying this definition to the '998 patent, the Court construes Element (e) to require that the plastic product be expelled or otherwise driven into the substantially enclosed conduit.[8] The Court, however, declines to construe Element (e) as requiring either that the plastic product be free to move within the guide conduit after its ejection or that it is not held away from the walls of the guide conduit by any intervening structure on the grounds that they represent extra limitations not present in the claim language. The patent's language does not disclose a specific ejection method to be utilized and the specification's references to particular methods (i.e. stripper plate) should not be read into the actual claim itself. *See Laitram*, 863 F.2d at 865 ("References to a preferred embodiment, such as those often present in a specification, are not claim limitations."); *see also* '998 patent at Col. 5 11 6-11; 11.15-17; 23-25 ("While the above description contains many specificities, these should not be construed as limitations on the scope of the invention, but rather as an exemplification of one preferred embodiment thereof. . . .

8. During oral argument, Turn-Key insisted that the Court clarify its interpretation of "ejecting" so as to expressly allow for a pulling motion to be encompassed within the definition of the term. Defendants agreed that "ejecting" could encompass a pulling motion as long as force was applied. The Court concludes that "ejecting" can entail a pulling action and that the ordinary meaning of "pull" necessarily involves the application of force. *See* Random House Webster's College Dictionary at 1055. The Court notes that "force" is utilized in a broad sense here so that the application of gravity upon an object would constitute "force," as would the conventional means by which one removes dishes from a dinner table.

Molds may also be employed which do not have a stripper plate, but where ejection is accomplished by some other means such as pins or sleeves. . . . [T]he scope of the invention should be determined not by the embodiments illustrated, but by the appended claims and their legal equivalents.").

7. Element (f)

Element (f) of Claim 1 requires "Guiding and transporting the ejected product from between the mold parts through the guide conduit." '998 patent at Col. 6 11. 14-16. Turn-Key argues that this element must be construed according to its plain language and defines "guiding" as directing the product's path of travel through the conduit and "transporting" as causing the product to move through the conduit. Joint Statement at 14; P1's Opening Brief 16-18. Defendants conversely argue that Element (f) requires that each ejected plastic product has its path determined by and is conveyed by the guide conduit until the plastic product has exited the mold completely. In addition, Defendants argue that the ejected plastic product does not interact with any other structure for guiding or conveying it from between the primary mold parts, besides the guide conduit. Joint Statement at 41; Crest's Responsive Brief 17-19; KM, MC & Concord's Brief at 10-11.

The Court construes the term "guiding" according to its ordinary and customary meaning, thus signifying the act of directing, Random House Webster's College Dictionary at 577, and "transporting" in its ordinary and customary meaning, thus signifying the act of carrying. *Id.* at 1368. The

dictionary defines "through" as "in at one end, side, or surface and out at the other." *Id.* at 1341. The Court therefore construes Element (f) to require the directing and carrying of the ejected plastic product from the space separating the mold parts to the end or to an exit of the guide conduit. The Court finds Defendants' construction requiring that the carrying and directing of the product be accomplished by the conduit itself to be unsupported by the plain language of the claim. The Court's construction does not render "guide" in Element (d) meaningless because, as previously noted, Element (d) merely introduces the conduit and incorporates into its definition the role that it plays in directing the travel of the ejected molded plastic product—none of the parties contest the fact that the conduit plays some kind of role in directing the movement of the product.

The Court's construction also does not render "guiding" in Element (f) meaningless because the construction still requires that the product be directed in its travel from the space between the mold parts to the end or to an exit of the conduit. The claim language does not disclose the method by which the carrying and directing of the product is to be accomplished and as such, the Court declines to require that the product not interact with anything other than the guide conduit during the process described in this claim.

B. *Claim 2 of '998 Patent*

Claim 5, a dependent claim, provides for "[a] method according to claim 1, wherein step (f) comprises the step of (g) Transporting the ejected product through the guide conduit at an orientation directed by the contours of the guide conduit." '998 patent at Col. 6 at 11. 18-21.

Turn-Key argues that this claim must be construed to require the method of claim 1 but that now the product is touching the contours of the substantially enclosed guide conduit during its travel within the conduit. P1's Opening Brief at 18-19; P1's Reply Brief at 17-18. Defendants argue that this claim requires that each ejected product is held in a predetermined alignment by the internal surfaces of the walls of the guide conduit while it is conveyed through the guide conduit and out of the mold. Joint Statement at 43; Crest's Responsive Brief at 19. The Court finds that the parties essentially agree on the interpretation of this claim.

The Court construes "orientation" to be utilized in its ordinary and customary sense, thus signifying a position or alignment in relation to the points of a compass or to a specific place or object. Random House Webster's College Dictionary at 921. The Court thus construes Claim 2 as requiring the molded product to touch the contours of the conduit during its travel within the conduit so that the contours of the conduit themselves send the molded product along a specific alignment or position.

C. *Claim 5 of '998 Patent*

Claim 5, a dependent claim, provides for "[a] method according to Claim 1, 2, 3, or 4 wherein step (f) comprises the step of (h) Transporting the ejected product through the guide conduit with a stream of air." '998 patent at Col. 6 11. 30-33. Turn-Key argues that this claim must be construed as requiring the methods of Claims 1, 2, 3, or 4 but that now a stream of air is introduced into the substantially enclosed guide conduit so that the product is transported through the

conduit, accompanied by the stream of air. P1's Opening Brief at 19; P1's Reply Brief at 19. Defendants argue that this claim must be construed as providing for the method of any of claims 1-4 in which a stream of air provides at least a substantial part of the motive force causing the molded plastic product to move through the guide conduit. Crest's Responsive Brief at 19; KM, MC & Concord's Brief at 12-13.

Though the dictionary gives the primary definition of "with" as being "accompanied by" or "accompanying," Random House Webster's College Dictionary at 1476, it also defines "with" as "by the use of as a means or instrument" or "using" (i.e. cut with a knife). *Id.* Consequently, both constructions proffered by Turn-Key and Defendants appear to be supported by the dictionary. Ordinarily, in the phrase, "transporting the ejected product through the guide conduit with a stream of air," the word "with" would usually be understood to mean that the ejected product was transported through the guide conduit by the means of the stream of air. However, the specification of the '998 patent defeats such an interpretation here and, as such, controls the definition of the term "with" in Claim 5. *See Vitronics*, 90 F.3d at 1582 (noting that though courts should typically construe terms by their common, customary meaning, patentees are allowed to define their own terms in the specification and also noting that the specification "is the single best guide to the meaning of the disputed term"). The first and second preferred embodiments disclose that gravity, not air, transports the product down through the guide conduit. '998 patent Col. 3 11. 23-29; Col. 4 11. 1-6. In addition, the third preferred embodiment contemplates the introduction of air in a direction opposite to the travel of the product, indicating that

such air may retard rather than facilitate the product's movement. '998 patent at Col. 4. 11. 35-37 ("There is a stream of sterile air also in the product receiver guide conduits 22 but not necessarily in the direction of the arrows 24). Thus, the Court construes Claim 5 as providing for the transportation of the ejected product through the guide conduit, accompanied by a stream of air.

D. *Claim 6 of '998 Patent*

Claim 6, a dependent claim, provides for "A method according to claim 5 wherein step (h) comprises the step of: (i) Transporting the ejected product through the guide conduit with a stream of sterile air." '998 patent at Col. 6 11. 34-37. Turn-Key argues that the "stream of sterile air" must be construed as air that is filtered or otherwise treated to improve the purity of the air by reducing contaminants such as dust or other harmful products. P1's Opening Brief at 20. Defendants, on the other hand, define "sterile air" as air which is free from bacteria or other microorganisms. Crest's Responsive Brief at 20; KM, MC, & Concord's Brief at 13.

The dictionary defines "sterile" as: 1. Free from living germs or microorganisms; aseptic. 2. Incapable of producing offspring; infertile. 3. Barren; not producing vegetation. 4. (a) Noting a plant in which reproductive structures fail to develop. (b) Bearing no stamens or pistils. 5. Not productive of results, ideas, etc.; fruitless. Random House Webster's College Dictionary at 1265. In applying this definition to the '998 patent, the Court thus construes "sterile air" in Claim 6 to signify air that is free from living germs or microorganisms. Consequently, a "stream of sterile air"

signifies a current or flow of air that is free from living germs or microorganisms. Nothing in the specification shows that Sorenson, as patentee, intended to define the word in his own terms rather than by the term's common, customary meaning.

V. CONCLUSION

Based on the foregoing, the Court concludes that:

1. "Two mold parts" of the preamble of Claim 1 is construed as the mating halves of a mold as a whole.

2. "Parting surface" of the preamble of Claim 1 is construed as the faces of the two mold parts that either touch or lie adjacent when the mold parts are brought together; however, the faces of the two mold parts must touch each other at some point.

3. "Cavity" in the preamble of Claim 1 is construed as the hollow space that is surrounded by a parting surface.

4. "Combining" of Element (a) of Claim 1 is construed as the act of bringing the two mold halves into or joining the two mold halves in a close union or whole by moving one or both of them towards each other.

5. Element (b) of Claim 1 is construed as an act of forcefully introducing plastic that is capable of flowing into a hollow space surrounded by a parting surface.

6. Element (c) of Claim 1 is construed as the act of changing the fluid plastic to a state where the plastic has

relative firmness, coherence of particles, or persistence of form.

7. "Separating" in the first portion of Element (d) of Claim 1 is construed as the act of keeping apart or dividing the two mold halves by moving one or both of them away from each other.

8. "To create a substantially enclosed guide conduit" in the first portion of Element (d) is construed as the process whereby the result is a substantially enclosed guide conduit.

9. The "substantially enclosed guide conduit" is construed as a tube or channel that is almost entirely closed in from the outside environment, and that carries materials from one place to another and that helps to direct the materials' progressive motion.

10. The second portion of Element (d) of Claim 1 is construed as the requirement that the outlines of the body or figure of the conduit result from the regions of the parting surfaces and cavity surfaces that are revealed or uncovered after the "separating" process so that they can be viewed by the eye.

11. The third portion of Element (d) of Claim 1 is construed as the requirement that the conduit lead in a direction almost entirely perpendicular to the predetermined direction that one or both of the mold parts were moving toward the other during the process when they were being brought together.

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12. Element (e) of Claim 1 is construed as expelling or otherwise driving the molded plastic product into the conduit.

13. Element (f) of Claim 1 is construed as the carrying and directing of the product from the space between the mold parts to the end or to an exit of the conduit.

14. Claim 2 is construed as the requirement of the method according to claim 1 but that now the product is touching the contours of the conduit during its travel within the conduit so that the contours of the conduit themselves send the molded product along a specific alignment or position.

15. Claim 5 is construed as providing for the transportation of the ejected product through the guide conduit, accompanied by a stream of air.

16. Claim 6 is construed as requiring a stream of sterile air that is free from living germs or microorganisms.

IT IS SO ORDERED.

Dated: January 8, 2002

s/ Lourdes G. Baird
LOURDES G. BAIRD
United States District Judge

APPENDIX E — ORDER OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT DENYING PETITION FOR REHEARING DATED AND FILED OCTOBER 6, 2003

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

02-1613, -1614, -1615, -1616

TURN-KEY-TECH, LLC,

Plaintiff-Appellant,

v.

NATIONAL FILM LABORATORY, INC. (doing business as Crest National Optical Media), MUSIC CITY OPTICAL MEDIA, INC., HOLLYWOOD RECORDS, INC., CONCORD DISC MANUFACTURING CORP., KRAUSS MAFFEI CORPORATION, and KRAUSS MAFFEI KUNSTSTOFFTECHNIK GMBH,

Defendants-Appellees.

ORDER

Before MAYER, Chief Judge, BRYSON, Circuit Judge, and LINN, Circuit Judge.

A petition for rehearing having been filed by the APPELLANT,

Appendix E

UPON CONSIDERATION THEREOF, it is

ORDERED that the petition for rehearing be, and the same hereby is, DENIED.

The mandate of the court will issue on October 14, 2003.

FOR THE COURT,

s/ Jan Horbaly
Jan Horbaly
Clerk

Dated: October 6, 2003

APPENDIX F — U.S. PATENT NO. 4,422,998

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 4,422,998
DATED : December 27, 1983
INVENTOR(S) : Jens Ole Sorensen

It is certified that error appears in the above-indentified patent and that said Letters Patent is hereby corrected as shown below:

In the drawing, cancel Figures 1 through 12, and insert the following Figures 1 through 12 as per attached sheets.

Signed and Sealed this

Seventh Day of June, 1994

Attest:

BRUCE LEHMAN

Attesting Officer

Commissioner of Patents and Trademarks

Appendix F

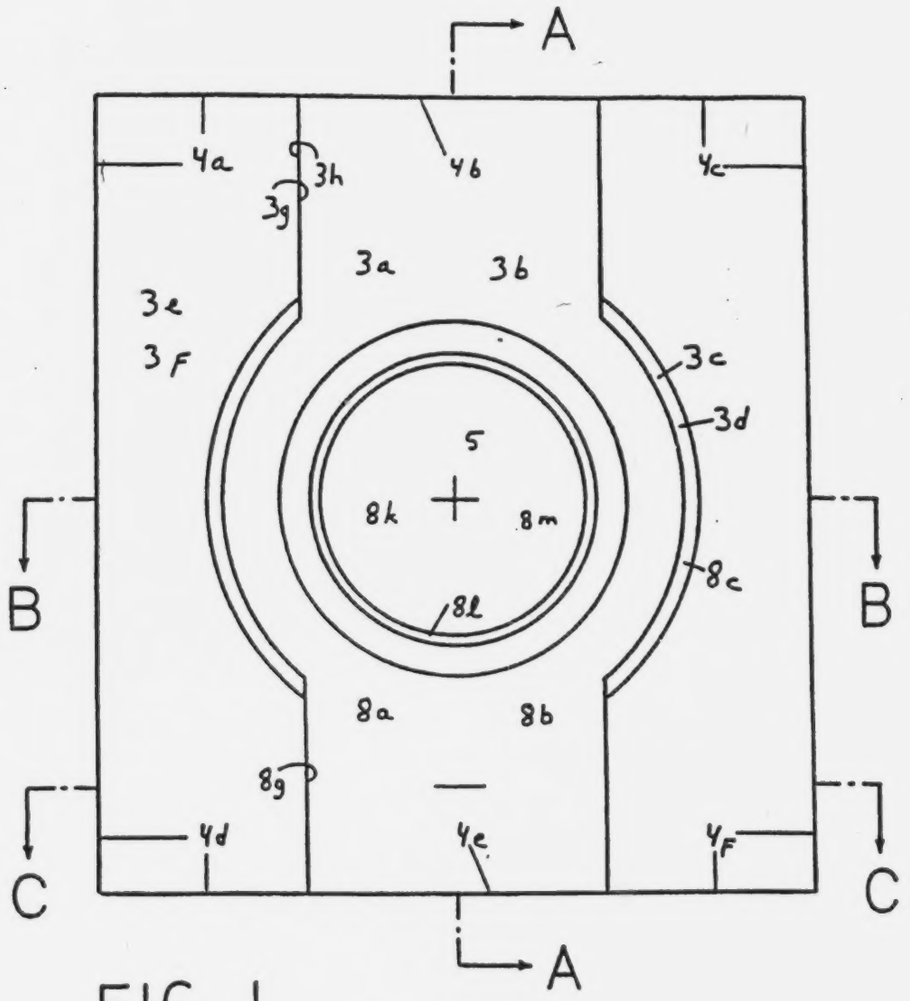

FIG 1

Appendix F

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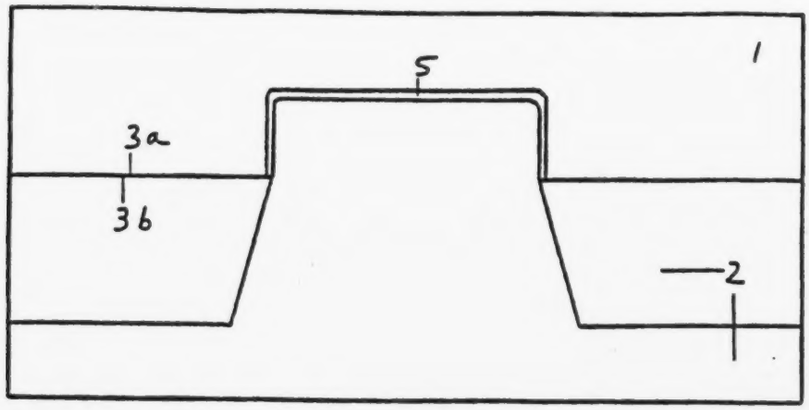

FIG 2

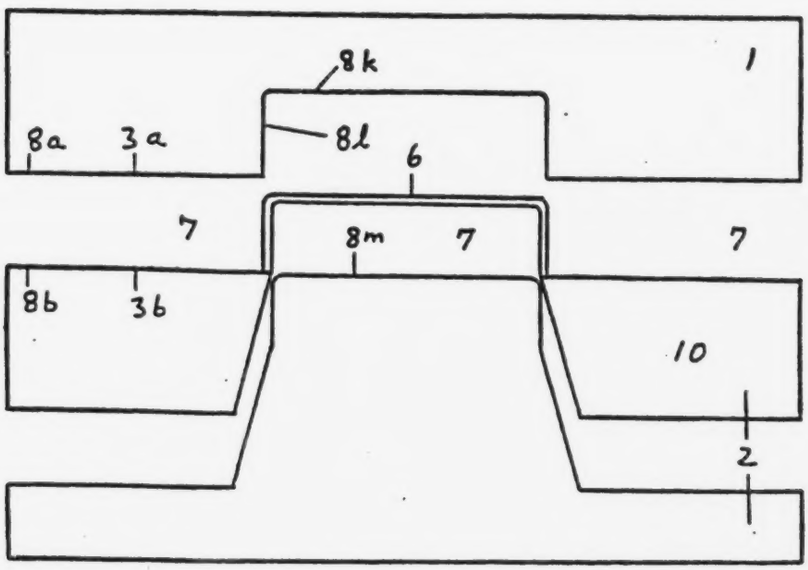

FIG 3

Appendix F

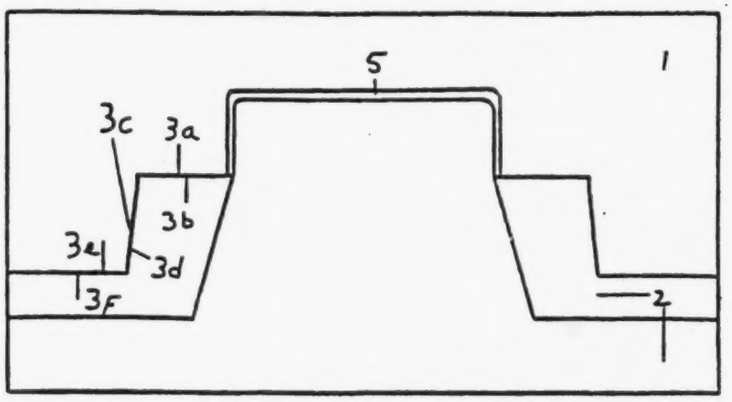

FIG 4

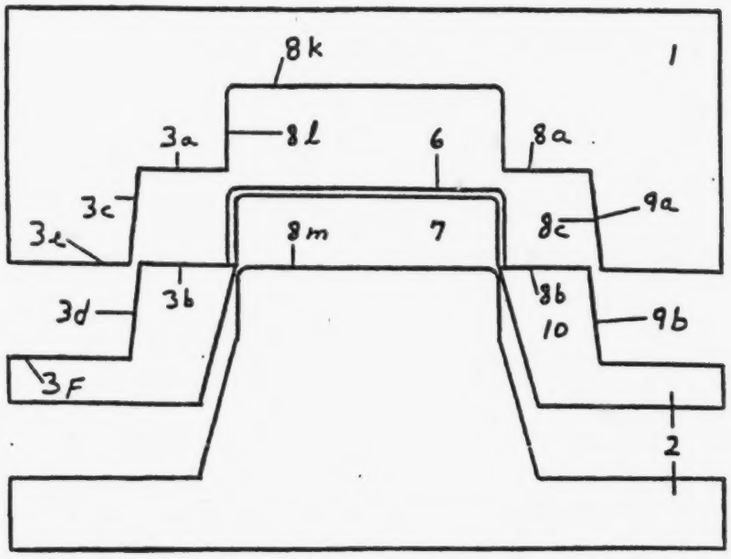

FIG 5

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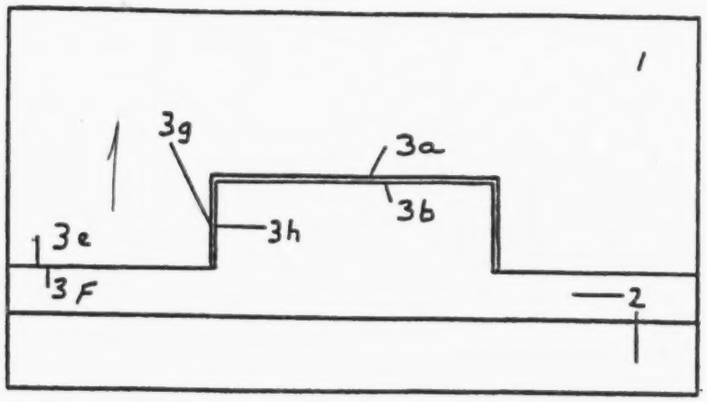

FIG 6

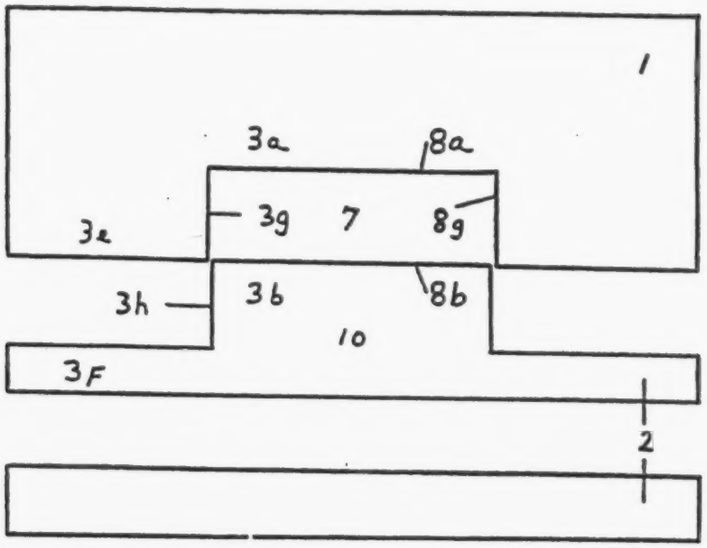

FIG 7

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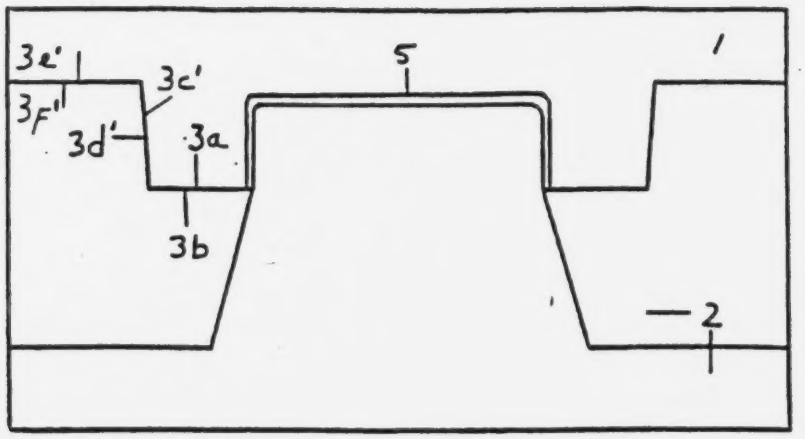

FIG 8

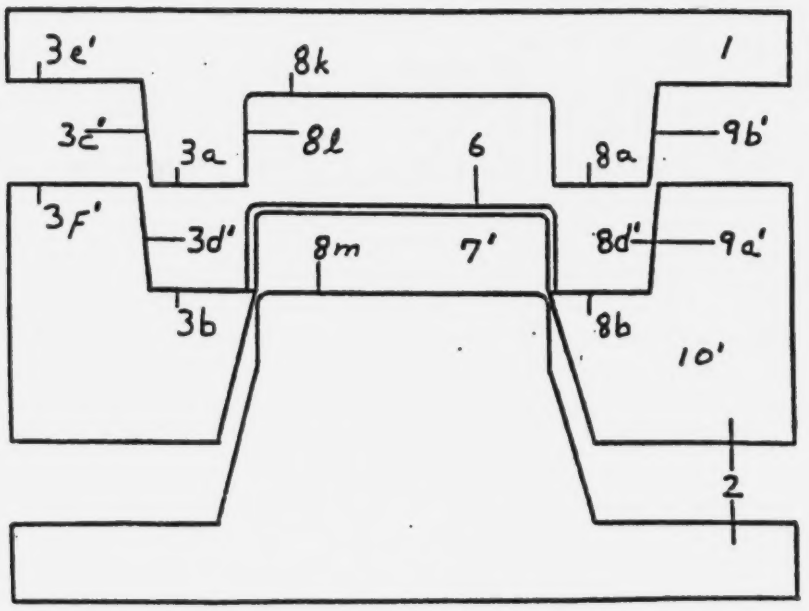

FIG 9

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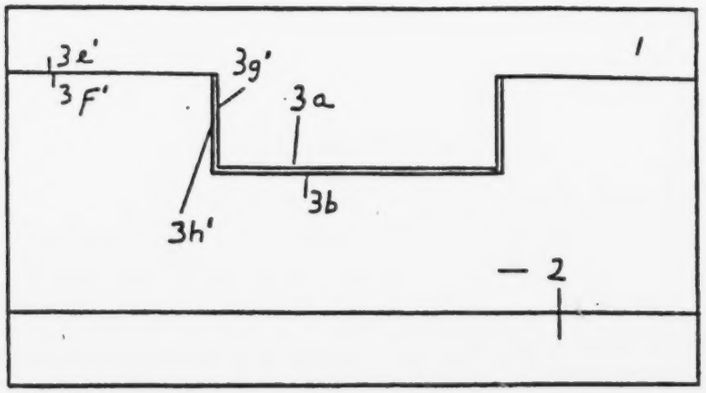

FIG 10

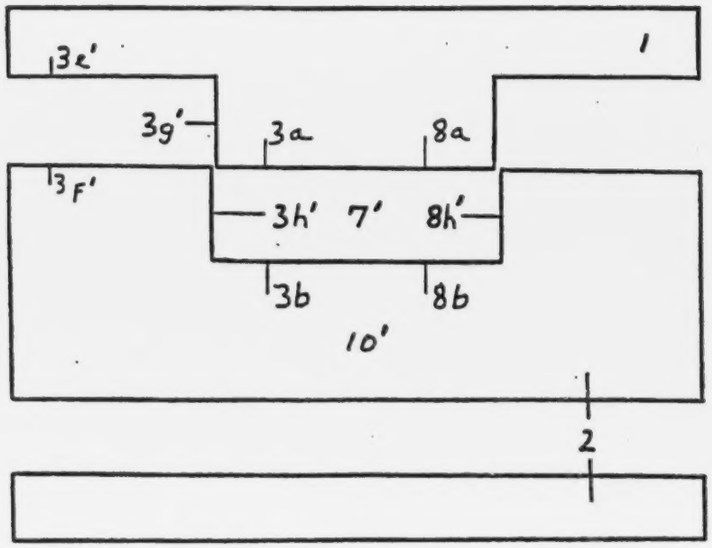

FIG 11

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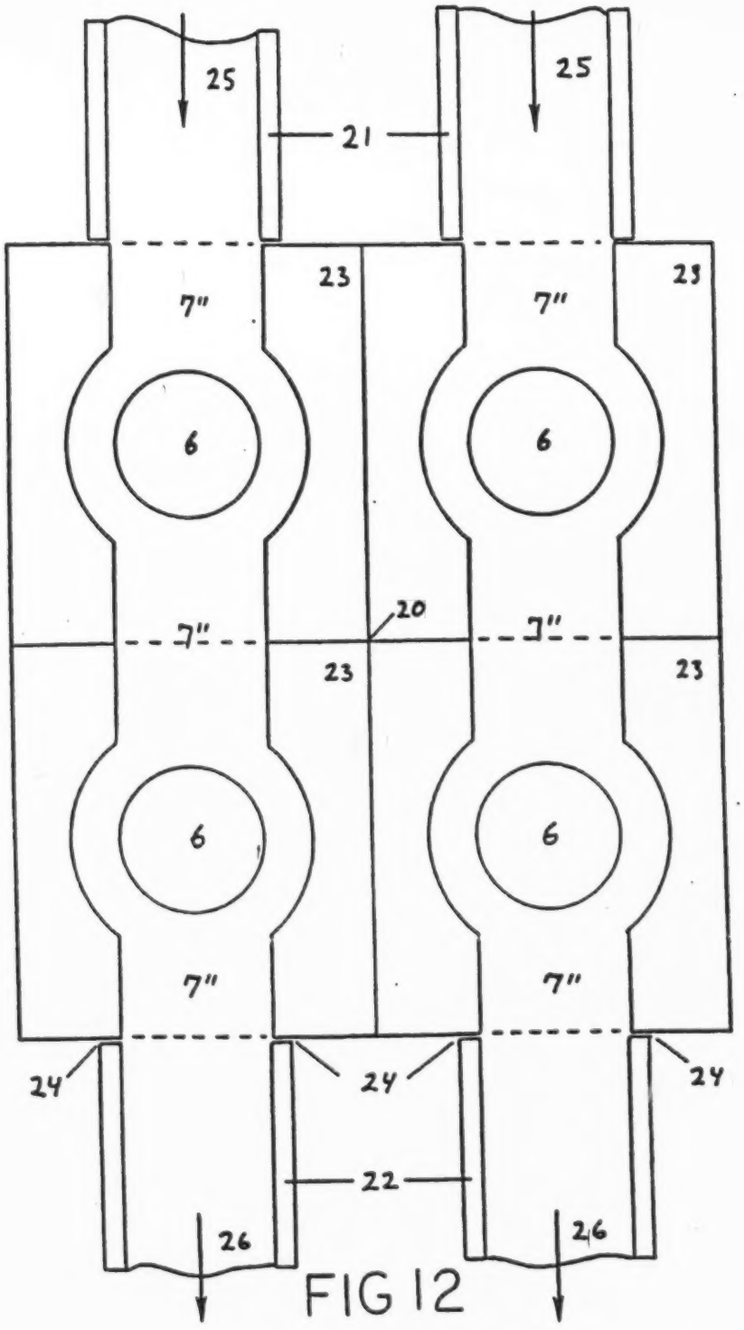

FIG 12

Appendix F

United States Patent [19]

Sorensen

[11] **4,422,998**

[45] **Dec. 27, 1983**

[54] **CONTROLLED EJECTION METHOD FOR INJECTION MOLDING**

[76] Inventor: **Jens O. Sorensen, P.O. Box 2274, Rancho Santa Fe, Calif. 92067**

[21] Appl. No.: **370,937**

[22] Filed: **Apr. 22, 1982**

[51] **Int. Cl.**³ **B29C 7/00**

[52] **U.S. Cl.** **264/335; 425/437; 425/DIG. 102**

[58] **Field of Search** **264/334, 335; 425/DIG. 102, 437**

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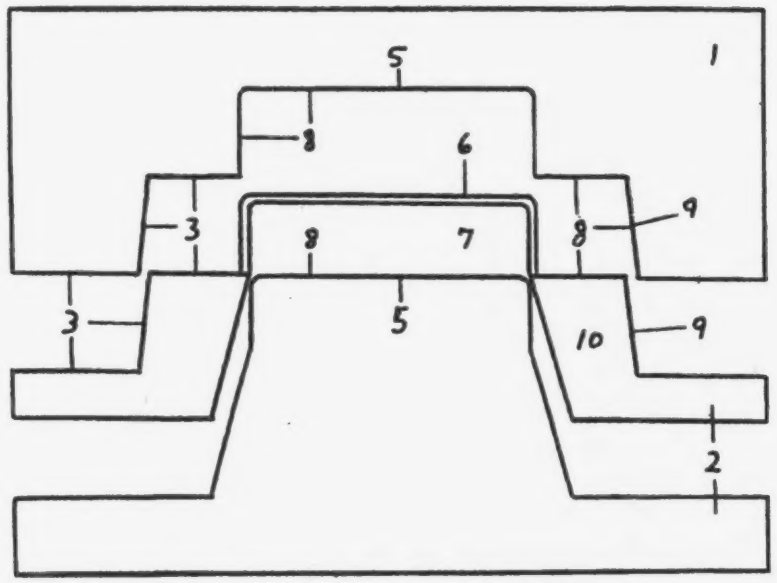
Primary Examiner—Thomas P. Pavelko
Attorney, Agent, or Firm—Brown & Martin

[57] **ABSTRACT**

A method of controlled ejection of a molded product in relation to orientation, speed of ejection and/or sterility is disclosed. The method is not dependent on auxiliary moving parts or vulnerable pins or blades. The molded product is ejected into a substantially enclosed guide conduit where the contours of the conduit substantially are regions of the parting surface and the cavity/ies. The guide conduit may be fairly holeproof, whereby a very fast ejection may be accomplished when the molded product is transported in an air stream in a manner similar to a pneumatic dispatch, not necessarily in a downward direction. The molded product may be kept sterile while it is transported in a stream of sterile air.

6 Claims, 12 Drawing Figures



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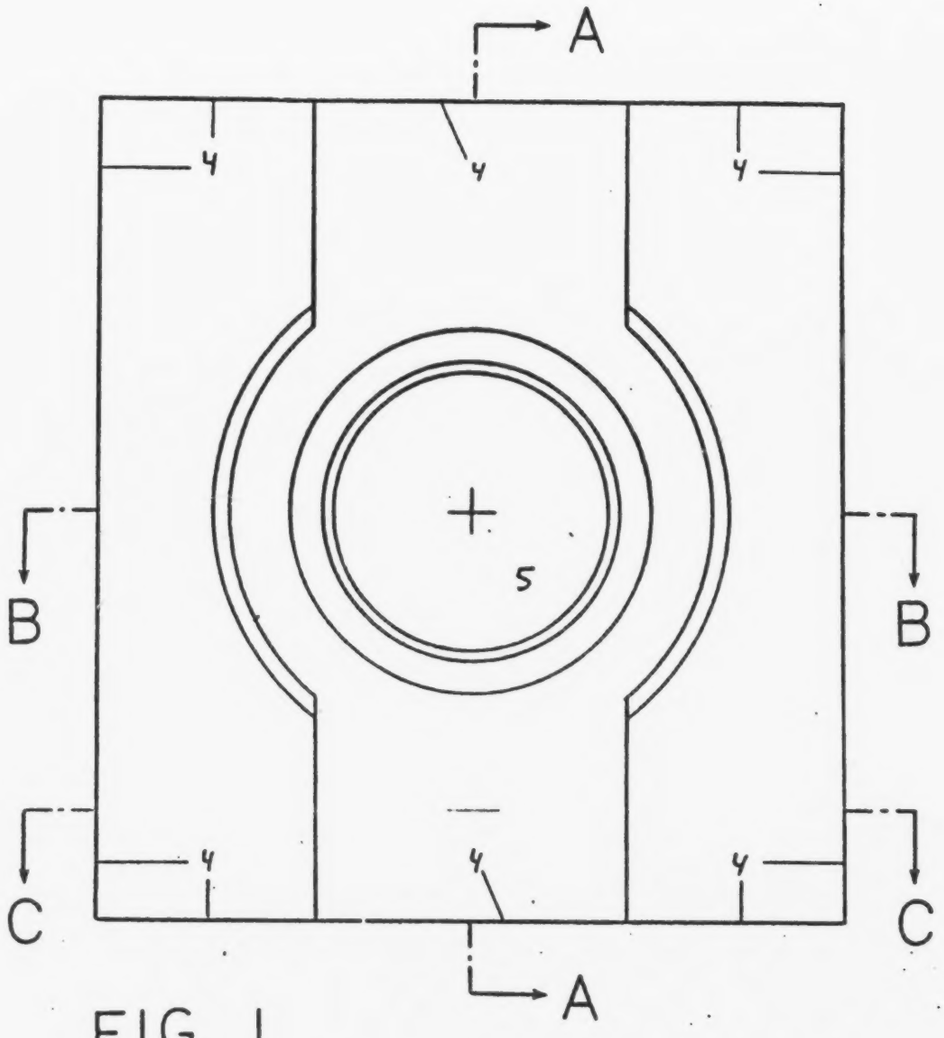

FIG 1

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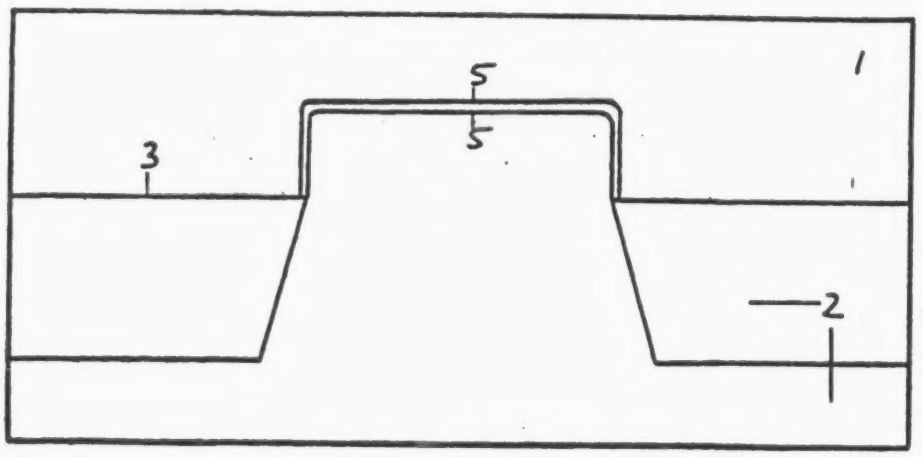

FIG 2

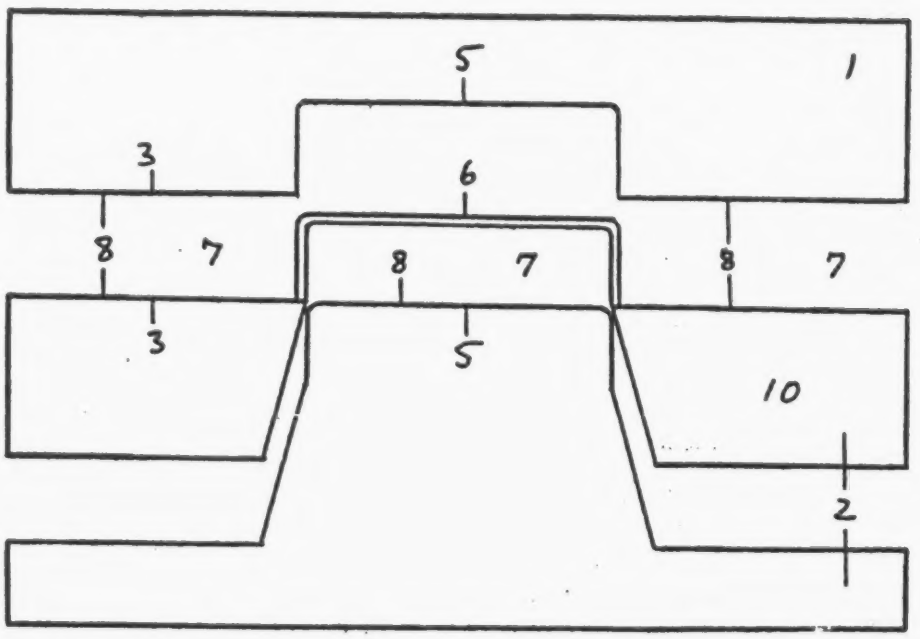

FIG 3

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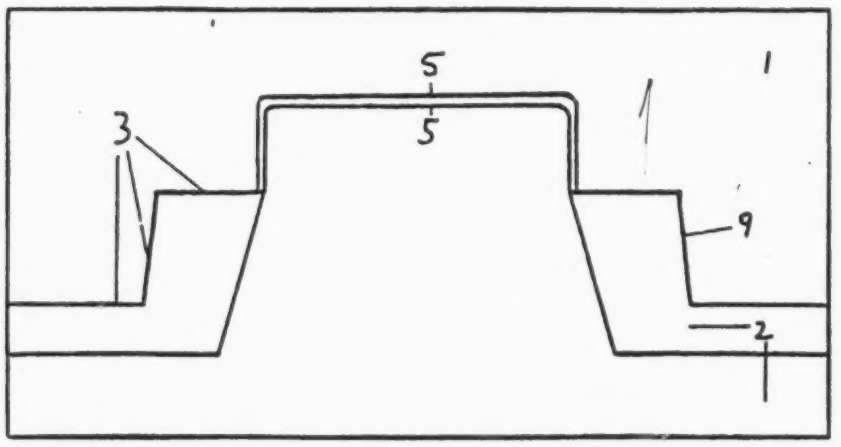

FIG 4

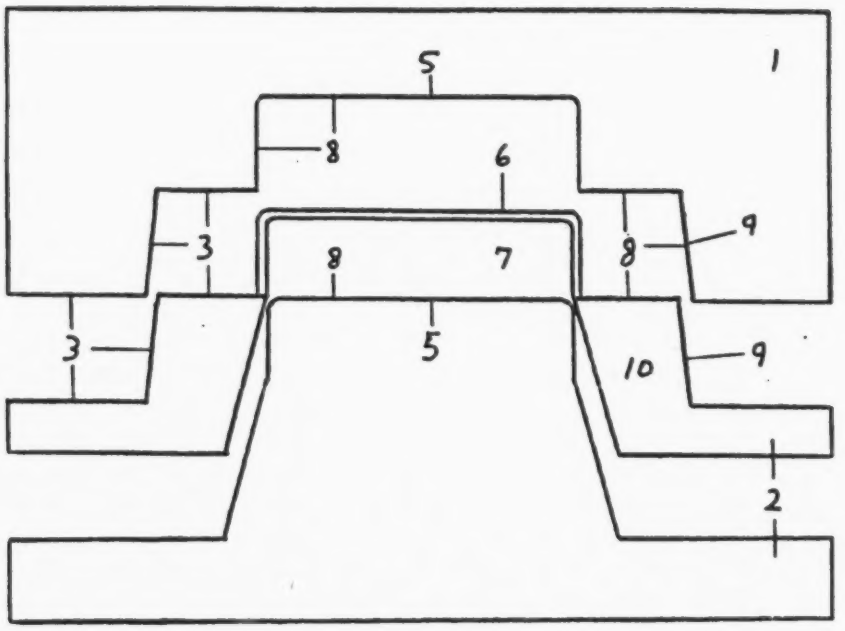

FIG 5

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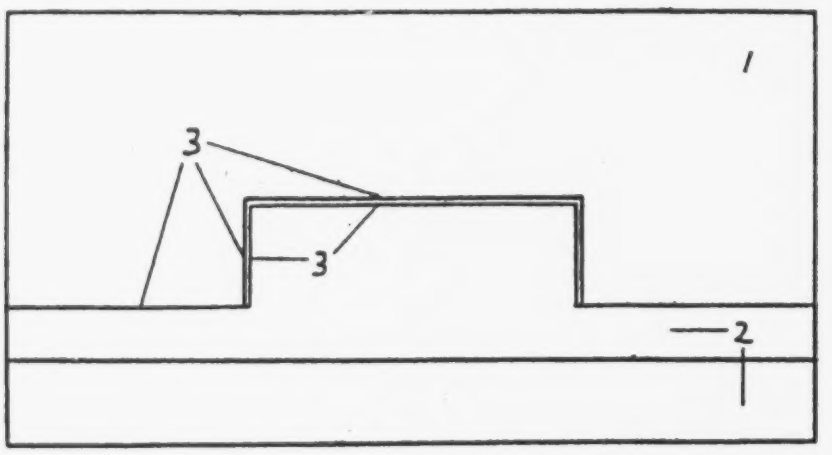

FIG 6

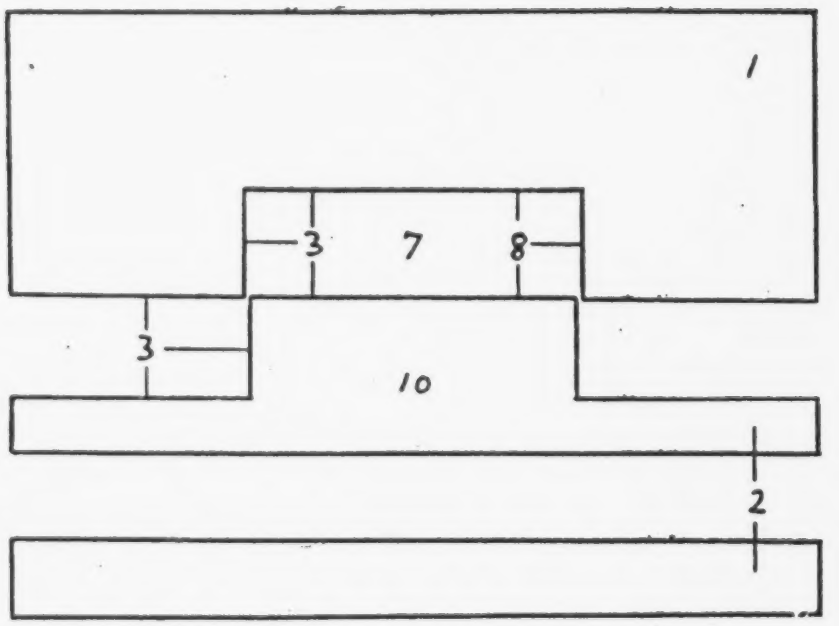

FIG 7

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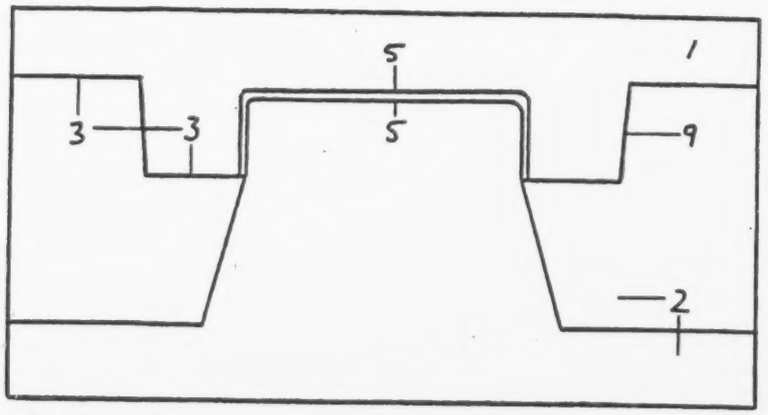

FIG 8

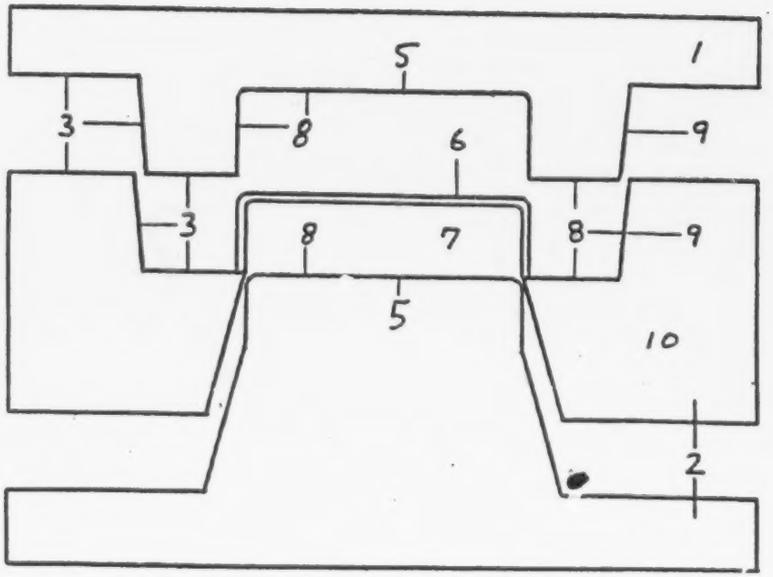

FIG 9

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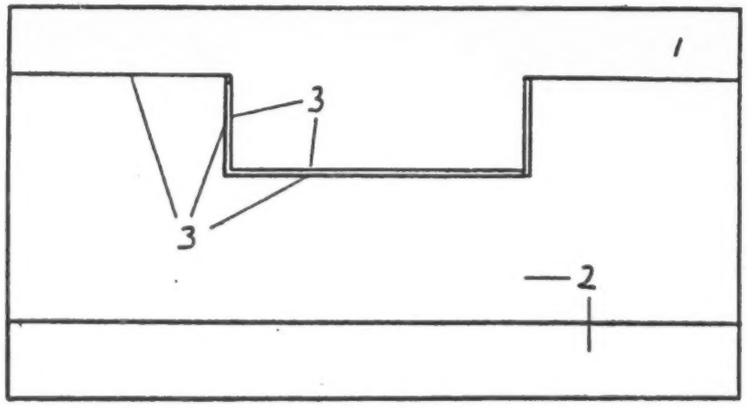

FIG 10

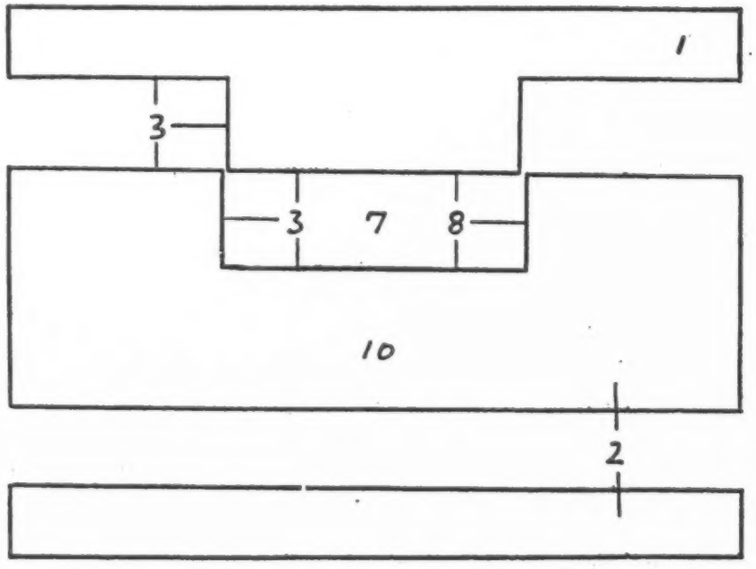

FIG 11

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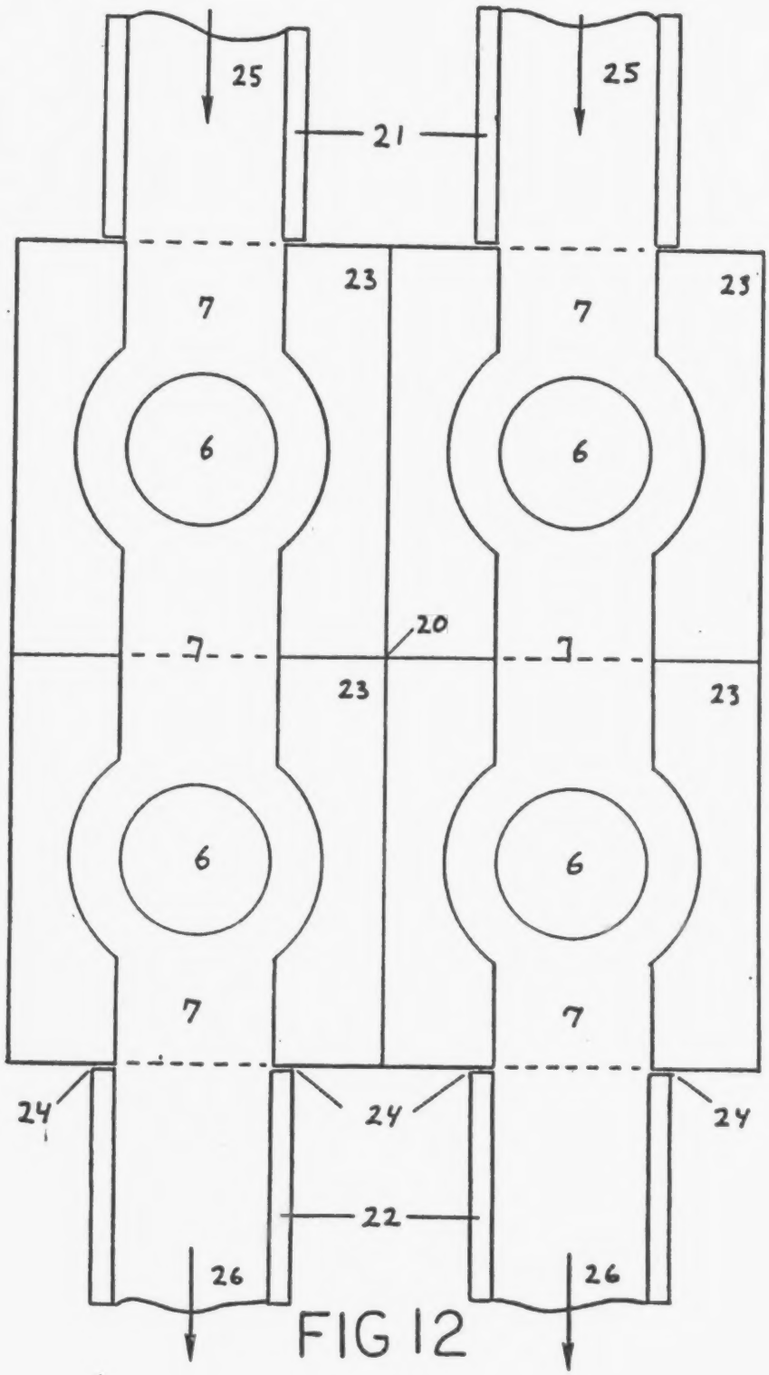

FIG 12

Appendix F

CONTROLLED EJECTION METHOD FOR INJECTION MOLDING

FIELD OF THE INVENTION

The invention relates to a method of injection molding of plastic and specifically to an improved method of controlled ejection of the injection molded product from the mold.

DISCUSSION OF PRIOR ART

Heretofore controlled ejection of injection molded plastic products have employed complicated mobile guide rails or guide pins, which wear down and reduce production stability. Other methods have employed stationary elements such as pins or blades which may be received in recesses of the confronting mold part in the closure position. But such pins or blades are quite vulnerable, particularly in case a molded product gets caught between the mold parts during the closing action. Also the recesses are quite difficult to clean in case the injected plastic material by accident flashes and finds its way into the recesses.

OBJECTS OF THE INVENTION

Among the objects of the invention are to facilitate controlled ejection of the injection molded product in relation to its orientation, speed of ejection, and/or sterility, basically without the need of auxiliary moving parts or vulnerable elements such as pins or blades. Further objects and advantages of the invention will become apparent from the subsequent descriptions and drawings.

SUMMARY OF THE INVENTION

A method of cyclic injection molding of plastic where the mold comprises two parts which are separated by a parting surface and at least one cavity situated internally to the boundaries of the parting surface, and wherein each production cycle comprises the steps of:

(a) Combining the two mold parts by moving, in a predetermined direction, the mold parts in relation to each other;

(b) Injecting plastic in a fluid state into a cavity situated within the parting surface;

(c) Solidifying the injected plastic in the cavity, thereby creating a molded product;

(d) Separating the two mold parts by moving, in a direction opposite to the predetermined direction, said mold parts in relation to each other to create a substantially enclosed guide conduit having contours defined by the regions of the parting surface and the internally positioned cavity/ies that are exposed subsequent to separation and leading in a direction substantially perpendicular to said predetermined direction.

(e) Ejecting the plastic product into the guide conduit; and

(f) Transporting the ejected product through the guide conduit. The ejected product may be transported through the guide conduit at an orientation directed by the contours of the guide conduit.

Since it is possible to make the contours of the guide conduit fairly holeproof, a very fast ejection may be accomplished when a stream of air is passed through the guide conduit, in which case the molded product may be transported in the guide conduit in a manner similar to a pneumatic dispatch, and not necessarily in a downward direction.

When the temperature of the injected plastic is at a sterilizing temperature, the molded product is sterile as ejected into the guide conduit. A stream of air which is sterile may be used, in which case the molded products can be transported in a sterile environment from the cavities to, for instance, a sterile packing facility. In this case it is preferable that the pressure of the sterile air in the guide conduit is at a slightly higher pressure than the pressure outside of the guide conduit, so that the outside air is not drawn into the guide conduit which may not be absolutely holeproof.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 illustrates elevational transparent end view of an injection mold with one cavity employed in the method of the invention.

FIG. 2 illustrates a cross sectional view of the mold of FIG. 1 in a combined position as seen through section line A—A.

FIG. 3 shows the same cross sectional view as FIG. 2 but with the mold in a separated position.

FIG. 4 illustrates a cross sectional view of the mold of FIG. 1 in a combined position as seen through section line B—B.

FIG. 5 shows the same cross sectional view as FIG. 4 but with the mold in a separated position.

FIG. 6 illustrates a cross sectional view of the mold of FIG. 1 in a combined position as seen through section line C—C.

FIG. 7 shows the same cross sectional view as FIG. 6 but with the mold in a separated position.

FIG. 8 illustrates a cross sectional view of an alternative preferred embodiment to that shown in FIGS. 1 to 7 with the mold in a combined position as seen from the same direction as FIG. 4.

FIG. 9 shows the same cross sectional view as FIG. 8 but with the mold in a separated position.

FIG. 10 illustrates the same preferred embodiment as shown in FIGS. 8 and 9. Shown is a cross sectional view of the mold in a combined position, seen from the same direction as FIG. 6.

FIG. 11 shows the same cross sectional view as FIG. 10 but with the mold in a separated position.

FIG. 12 is one-half of the scale of FIGS. 1 to 11 and illustrates an elevational transparent end view of an assembly mold made up of four molds of the type illustrated in any of the previous Figures.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

FIGS. 1 to 7 illustrate various sectional views of an injection mold used in a first preferred embodiment of the method of the invention. Like reference numbers refer to like components in these figures.

The injection mold comprises a first mold part 1 and a second mold part 2 separated by a parting surface 3*a*, 3*b*, 3*c*, 3*d*, 3*e*, 3*f*, 3*g*, 3*h* and a cavity 5 which is situated internally to the boundaries 4*a*, 4*b*, 4*c*, 4*d*, 4*e*, 4*f* of the parting surface. A molded plastic product 6, a petri dish, is shown being ejected by the stripper plate 10 from the cavity 5 into a guide conduit 7. The contours 8*a*, 8*b*, 8*g*, 8*k*, 8*l*, 8*m* of the guide conduit 7 substantially are regions of the parting surface 3*a*, 3*b*, 3*c*, 3*d*, 3*e*, 3*f*, 3*g*, 3*h* and the cavity 5. Steering cones 9*a*, 9*b* have the shape of conical surfaces and are used to guide the two mold parts accurately together when combined.

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The operation of the mold is cyclical, each cycle comprises the following action. A conventional drive means not shown, combines the two mold parts 1 and 2 by relative movement of the mold parts 1 and 2 in horizontal direction. Plastic is injected into the cavity 5 in a conventional manner through a gate, not shown. The plastic solidifies while the two mold parts 1 and 2 still are in their combined position as shown in FIGS. 2, 4 and 6.

When the plastic is solidified the drive means separates the two mold parts by relative movement of the mold parts 1 and 2 in a horizontal direction as best seen in FIGS. 3, 5 and 7. Viewing FIGS. 1, 3, 5 and 7 together, it is seen that separation of the two mold parts 1 and 2 creates the guide conduit 7, which leads in a direction parallel to line A—A (in FIG. 1), and which is substantially enclosed in the cross-sectional regions taken along lines B—B and C—C (in FIG. 1). The solidified molded plastic product 6 is ejected into the guide conduit 7, which leads in a vertical direction, by relative movement of the stripper plate 10 in relation to the rest of the mold part 2.

The ejected plastic product 6 is then transported by gravity down through the guide conduit 7, the contours *8a, 8b, 8c, 8g, 8k, 8l, 8m* of which are exposed when the mold parts 1 and 2 are separated. The orientation of the product 6 is directed by the contours of the guide conduit.

FIGS. 8 to 11 illustrate various sectional views of the injection mold used in a second preferred embodiment of the method of the invention. Like reference numbers refer to like components in these figures.

The injection mold comprises a first mold part 1 and a second mold part 2 separated by a parting surface *3a, 3b, 3c', 3d", 3e', 3f, 3g', 3h'* a cavity 5 which is situated internally to the boundaries 4 of the parting surface *3a, 3b, 3c', 3d", 3e',3f, 3g', 3h'*. A molded plastic product 6, a petri dish, is shown being ejected by the stripper plate 10' from the cavity 5 into a guide conduit 7'. The contours *8a, 8b, 8c', 8g', 8k, 8l, 8m* of the guide conduit 7' are substantially regions of the parting surface *3a, 3b, 3c', 3d", 3e', 3f, 3g', 3h'* and the cavity 5. Steering cones *9a', 9b'* have has the shape of conical surfaces and are used to guide the two mold parts accurately together when combined.

The operation of the mold is cyclical, each cycle comprises the following action. A conventional drive means not shown combines the two mold parts 1 and 2 by relative movement of the mold parts 1 and 2 in horizontal direction. Plastic is injected into the cavity 5 in a conventional manner through a gate, not shown. The plastic solidifies while the two mold parts 1 and 2 still are in their combined position as shown in FIGS. 8 and 10.

When the plastic is solidified the drive means separates the two mold parts by relative movement of the mold parts 1 and 2 in a horizontal direction as best seen in FIGS. 9 and 11. Viewing FIGS. 1, 3, 9 and 11 together it is seen that separation of the two mold parts 1 and 2 creates the guide conduit 7', which leads in a direction parallel to line A—A (in FIG. 1), and which is substantially enclosed in cross-sectional regions taken along lines B—B and C—C (in FIG. 1). The solidified molded plastic product 6 is ejected into the guide conduit 7' which leads in a vertical direction, by relative movement of the stripper plate 10' in relation to the rest of the mold part 2.

The ejected plastic product 6 is then transported by gravity down through the guide conduit 7' the contours *8a, 8b, 8d', 8h', 8k, 8l, 8m* of which are exposed when the mold parts 1 and 2 are separated. The orientation of the product 6 is directed by the contours of the guide conduit.

FIG. 12 illustrates a sectional view of an assembly mold 20 used in a third preferred embodiment of the method of the invention. The assembly mold 20 consists of four mold elements 23, similar to the single cavity molds described in FIGS. 1 to 11. Also shown in a position above the mold 20 are two supply conduits 21 for a stream of sterile air, and two product receiver guide conduits 22 in a position below the mold 20.

The two supply conduits 21, for the sterile air, connect to the upper ends of the two guide conduits 7" of the two upper mold elements 23. The lower ends of the two guide conduits 7" of the two upper mold elements 23 connect to the upper ends of the two guide conduits 7" of the two lower mold elements 7". The lower ends of the two guide conduits 7" of the two lower mold elements 23 connect to the two product receiver guide conduits 22.

The operation of the assembly mold is similar to the operation of the molds described in FIGS. 1 to 11. When the assembly mold 20 is in its separated position, a stream of sterile air is supplied by the supply conduits, in the direction of the arrows 25, the stream of air enhances the speed of transporting the molded products 6, petri dishes, down through the guide conduits 7". The molded products 6 from the upper two mold elements 23 pass through the guide conduits of the lower two mold elements 23 on their way to the product receiver guide conduits 22 which they pass through in the direction of the arrows 26. There is a stream of sterile air also in the product receiver guide conduits 22 but not necessarily in the direction of the arrows 24. If the stream of sterile air from the guide conduits 22 is in a direction opposite to the arrows 26, then both streams of air, that is from above through the mold guide conduits 7" and below through the product receiver guide conduit 22, will escape through a small opening 24 positioned where the mold guide conduits 7" are connected to the product receiver guide conduits 22.

If the stream of sterile air is moving in the direction of the arrows 26 that is moving in the same direction that the molded product 6 pass through the product receiver guide conduit 22, then the speed of transporting the molded product in the conduit 22 is enhanced. The temperature of the fluid injected plastic is at a sterilizing temperature, the molded product 6 is therefore sterile as ejected into the guide conduit 7" which conducts a stream of sterile air. The product receiver guide conduit 22 which also conducts a stream of sterile air, leads to a sterile packing environment where the molded product 6 is packed in a sterile condition in a sterile container.

From the time that the products 6 are ejected into the guide conduits 7" to the time they reach the packing environment, their orientation is directed by the contours of the guide conduits 7" and the product receiver guide conduits 22, in order to supply the products 6 for easy packing operation.

In FIG. 12 the cavities are positioned in two vertical rows of two. But it is, of course, possible to place any amount of vertical rows with any amount of cavities in each row. Also in FIG. 12, the direction of the arrows 25 and 26 point in a downward direction. But it is within the scope of the invention, to place the mold with an

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orientation in a suitable injection molding machine, so that the mold separates into its two constituent parts 1 and 2 by relative movement in a vertical direction, in which case the direction of the arrows 25 and 26 would be horizontal. In such case the transport of the molded parts 6 would not be by gravity, but may be accomplished by the stream of air alone. While the above description contains many specificities, these should not be construed as limitations on the scope of the invention, but rather as an exemplification of one preferred embodiment thereof. Many other variations are possible, for example molds may be utilized which have several parting surfaces, such as sandwich or stack molds. Molds may also be employed which do not have a stripper plate, but where ejection is accomplished by some other means such as pins or sleeves. In the drawings of the preferred embodiments, molds are shown which use a steering cone for guiding the two mold parts accurately together when combined, but other means of guiding may be used such as traditional leader pins. Accordingly, the scope of the invention should be determined not by the embodiments illustrated, but by the appended claims and their legal equivalents.

I claim:

1. A method of cyclic injection molding of plastic where the mold comprises two parts which are separated by a parting surface and at least one cavity situated internally to the boundaries of the parting surface, and wherein each production cycle comprises the steps of:

(a) Combining the two mold parts by moving, in a predetermined direction, the mold parts in relation to each other;

(b) Injecting plastic in a fluid state into a cavity situated within the parting surface;

(c) Solidifying the injected plastic in the cavity, thereby creating a plastic product;

(d) Separating the two mold parts by moving, in a direction opposite to the predetermined direction, said mold parts in relation to each other to create a substantially enclosed guide conduit having contours defined by the regions of the parting surface and the internally positional cavity/ies that are exposed subsequent to separation and leading in a direction substantially perpendicular to said predetermined direction;

(e) Ejecting the plastic product into said guide conduit; and

(f) Guiding and transporting the ejected product from between the mold parts through the guide conduit.

2. A method according to claim 1, wherein step (f) comprises the step of:

(g) Transporting the ejected product through the guide conduit at an orientation directed by the contours of the guide conduit.

3. A method according to claim 1, wherein said (a) comprises the step of:

(g) Combining the two mold parts in a horizontal direction.

4. A method according to claim 1 wherein step (e) comprises the step of:

(g) Ejecting the plastic product into a guide conduit which leads in a substantially vertical direction.

5. A method according to claim 1, 2, 3 or 4 wherein step (f) comprises the step of:

(h) Transporting the ejected product through the guide conduit with a stream of air.

6. A method according to claim 5 wherein step (h) comprises the step of:

(i) Transporting the ejected product through the guide conduit with a stream of sterile air.

* * * * *